

ORGANIC V.S. COMMERCIAL – IS ORGANIC REALLY BETTER?

You decide. I know what you'll say after you read this.

There was a time when all food was grown organically. Today, it is the exception more than the rule. By strictest definition organic means that foods are not grown or processed with any chemicals. This includes storage and transport as well. However, organic is more than that. The name also denotes quality. Simply put, organic foods have greater nutritional density.

What many people don't realize is the farming practices differ dramatically between organic and commercially grown produce. Old time-tested farming techniques dictate that crops need to be rotated, land has to rest every 7 years, good watering principles used and the soils restored nutritionally. In commercial farming crops are grown in the same soil year after year and are rarely rotated. The land isn't left to rest and crops are frequently flood-irrigated. The federal government requires only 3 nutrients to be returned to the soil – it's called "PKN" (Phosphorus, Potassium and Nitrogen). However, the foods grown on the soil rob many other nutrients as well. As food is re-grown on the same depleted soils, the plants get sick. Sick plants attract insects. It is part of nature's system of eliminating the weak – only the strong are supposed to survive. When insects start destroying crops, pesticides are used to eliminate the problem. As a result, sick plants survive and we ingest nutritionally weak foods.

Organic farmers don't have the luxury of using chemicals. Organic farming mandates healthy crops or the insects will put them out of business. As a result they have to rotate crops and allow the soil to rest. They cannot flood irrigate and the must restore the soil. They do this by composting the soil or adding organic materials and minerals back into the soil. As a result, the plants have all the nutrients they need to be healthy, are not bothered by insects or weeds (another of nature's way of shoving out the weak). This results in foods that pound-for-pound are nutritionally more dense.

A study done at Rutgers University (Firman E. Baer Report) illustrated this profoundly! After doing mineral assays on produce grown both organically and commercially, their results were astounding. Here are some excerpts: Tomatoes grown organically had 1938ppm iron to commercial tomatoes 1ppm – that's 1938 times more iron in organic tomatoes! You can taste the difference if you've grown tomatoes from your own garden instead of bought them at the store. Organic spinach had 1584ppm iron to commercial spinach 49ppm. Organic cabbage had 148.3ppm potassium to commercial cabbage of 33.7. Organic snap beans had 99.7ppm potassium to commercial 29.1. Organic lettuce had 169ppm manganese & 516 iron to commercial lettuce with 1ppm manganese and 9 iron. Cobalt (a necessary trace mineral) was completely absent in commercially grown snap beans, cabbage, lettuce and tomatoes, yet cobalt was rich in those same vegetables grown organically. All over the board figures were similar. There was not a single vegetable grown organically that did not have significantly higher levels of minerals.

In a study published in the *Journal of Applied Nutrition* in 1993 showed that on average, organic foods were 63% higher in calcium, 73% higher in iron, 118% higher in magnesium, 178% higher in molybdenum (trace mineral), 91% higher in phosphorus, 125% higher in potassium and 60% higher in Zinc. In another study they found that good soil nutrition greatly increased the levels of natural compounds that support the cardiovascular system and have immune-boosting, anti-cancer and anti-aging qualities.

Other than the superior nutritional qualities of organic produce, why else should we buy organic? Because of the dangers of agricultural and other synthetic chemicals. These have been shown to disrupt endocrine (hormonal), reproductive, nervous, and immune systems, and overload the liver and kidneys as they attempt to detoxify them. Various cancers and autoimmune diseases have been linked to these chemicals, as have childhood behavioral issues. Lupus, chronic fatigue, asthma and Parkinson's diseases have also been linked to these chemicals. The EPA considers 60% of herbicides, 90% of fungicides and 30% of insecticides as carcinogenic.

Animal foods contain more toxic residues than do plants. Animal foods also contain hormones, traces of pesticides (including lead, mercury, fluoride and others), as well as antibiotics. Antibiotic-resistant illnesses are of great importance today as fears of catastrophic non-responsive bacterial or viral strains weigh heavily on the minds of scientists today.

Organic produce is not as popular for several reasons. First they are not as "pretty". They'll have blemishes and the occasional worm hole (worms are smarter than people – they stay away from foods that don't have enough nutrients to sustain their life!). Organic produce is more expensive. There's no question about it. However, if you look at the nutrient density of organic foods compared to commercially grown, dollar for dollar, you're coming out further ahead eating organically.

The third reason people give for not eating organically is availability. That is rapidly changing. The Farmer's Market is a great resource in season. Locally, Pilgrims Natural Foods on 4th street has a large selection, Fred Meyer's has a descent selection and some of the local grocery stores have a small selection. As more and more people purchase organic foods, these stores will carry more.

Eating organically, according to Dr. Judith DeCava in *Nutrition News and Views* will help protect our children's health; prevent soil erosion (non-composted soils erode 7 times faster than composted); protect water quality from pesticide pollution; provide a healthier work environment for farmers; saves energy; helps family farms; supports a sustainable economy; promotes bio-diversity; gets more flavor and nourishment from your foods; avoids genetically modified foods; avoids irradiated foods; keeps hormones and antibiotics out of our foods and more.

Is there any longer a question which is best between organic or commercial? In my mind, the choice is clear. Organic is as much as they say it is – even better!