Professional Nutrition Therapists

Nutrition Tidbits

Monthly Nutrition Newsletter
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What is USDA Organic?

Organic is a term used to explain that a food product has been "produced without the use of most conventional pesticides, fertilizers made with synthetic ingredients or sewage sludge, bio-engineering, or ionizing radiation."

- If labeled "100% organic," the product has no synthetic ingredient
- If labeled "organic," it has a minimum of 95% organic ingredients. Both may use the U.S. Department of Agriculture (USDA) organic seal. Food labeled "made with organic ingredients" must contain at least 70% organic ingredients but may not use the seal.

Organic Foods: To Buy or Not To Buy?

The production of organic food has skyrocketed over the last few years. The recent explosion in its popularity can be directly attributed to the "going green" trend, the attempt to off-set obesity rates and the big debate over the effects of pesticides, hormones and overproduction of our food on our health. Going organic must be carefully considered, especially when it comes to children and their growing bodies.

Nutritional Debate

Some say organic produce is superior in nutrition. The problem is that this cannot be proven due to vast amount of variables that come into play in comparing organic vs. conventional. These include temperature, soil composition, time measured from farm to table and maturity at harvest. More research needs to be done with all factors being created equal and so far, the results are inconclusive. One interesting thing to note about organic produce is that they contain lower nitrogen and nitrate levels. Once consumed, the debate starts on what occurs with the nitrate. Does it combine with the amine group from protein sources to form nitrosamines or is it converted to nitrite with the help of gastric acid? Nitrosamines have been linked to higher incidence of cancer and nitrites, once acidified, have beneficial antimicrobial properties.

The affects of plants grown with lower nitrogen levels is less debated. The lower the nitrogen level, the higher levels of phytonutrients with antioxidant, anti-inflammatory and anti-clotting properties the food contains. This may be the best argument for going organic in produce.

Pesticide and Hormone Effects

Keep in mind that organic does not mean pesticide-free. There is a decrease in pesticides with organic produce, but some pesticide use is usually the reality in order to grow a crop at the levels our food supply requires. One pesticide in particular, *chlorpyrifos*, has been implicated in many negative effects in children including ADHD, obesity, diabetes and learning disorders. These are all serious charges. Although the U.S. government does not argue the negative effects that chlorpyrifos can have on people, they have set what they call safe limits in farming. The

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New at PNT

PNT has rolled out a new and improved website! Check it out at www.foodtherapyrd.com. Many of our clients do not realize that PNT is a network of hundreds of dietitians all around the world who provide nutrition solutions to individuals, groups and institutions. Our local clients in Dallas get to see us at home office, but we have dietitians virtually anywhere in the world to assist you where you live. We are the one-stop shop when it comes to nutrition!

PNT has also rolled out a new blog. We'll be posting some interesting information on our new "Genergy" program where a customized nutrition plan is generated based on your genetics. Many of the PNT dietitians are doing the test right now, and we'll report those results for all to see very soon! If you are inside the Dallas area, stop by and see us and we'll fill you in on all the great programs being rolled out in 2010.

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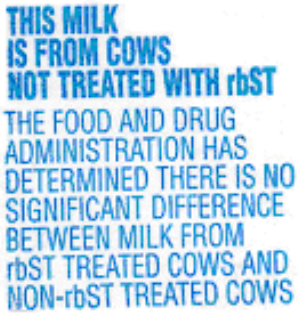
Food and Drug Administration (FDA) has set tolerances for chlorpyrifos for agricultural products ranging from 0.05 to 15 parts chlorpyrifos per million parts of food (0.05–15 ppm). The debate is whether or not these amounts have a lifelong impact on our health. Again, more research needs to be done before informed recommendations can be made. There are some foods that carry a higher pesticide residue on them following harvest. They have earned the nickname, "The Dirty Dozen." Those produce items are *peaches, apples, sweet bell peppers, celery, nectarines, strawberries, cherries, pears, grapes, spinach, lettuce and potatoes*. Encourage people to wash these produce items especially well with streaming water or a solution of vinegar mixed with 3% hydrogen peroxide.

Livestock & Dairy

Hormones and antibiotics in cattle that produce beef and dairy are another topic of controversy. The hormone rbST is given to dairy cows to increase milk production. The rbST given to dairy cows increases the levels of insulin-like growth factor 1 (IGF-1) in the milk. This is same growth factor that is seen in women with breast cancer, although a causative relationship between drinking milk with IGF-1 and cancer has not yet been linked. Added hormones in milk and other foods have been implicated for early puberty rates. Others believe that is more linked to the higher hormone production from an increase amount of fat cells in adolescents than the hormones contained in milk.

Mastitis is higher in cows that are given rbST. As a result, they are given antibiotics to treat the condition. Cow's milk given rbST do contain residual amounts of antibiotics, but the Federal Drug Administration (FDA) insists that they are at low enough levels that are safe for consumption. Some implicate the use of these antibiotics and others used to fatten livestock for the increasing rates of people acquiring antibiotic-resistant infections. For this concern, the American Medical Association issued an opposition in 2001 regarding their subtherapeutic use of antibiotics in agriculture. Due to the controversy, many local grocery stores including Kroger, WalMart, H-E-B and Safeway are now providing regular milk without the rBST hormone.



Label on rbST-free milk

Affordability

The other big consideration is a family's ability to purchase organic foods. Organic foods require a higher grocery budget that may or may not be realistic for the average family in today's economy. Additionally, many families are not even eating adequate amounts of produce, low-fat dairy or lean meat/protein sources. For those families, going from a poor diet to a diet higher in any type of produce would be an improvement to their health.

Organic or Local?

The trend in nutrition and dietetics is to encourage people to buy local produce whenever possible. Locally grown produce has a variety of benefits and they can be very economical. We know that when we buy local, the nutritional content of produce is better preserved due to less time spent away from the ground prior to consumption. Crowded conditions of factory farms increase the likeliness of bacterial contamination as seen in the 100% increase in salmonella cases in the last 10 years. As a side benefit, purchasing locally-grown produce reduces an individual's carbon footprint (*or, the total greenhouse gas emissions given off directly or indirectly by an individual)*. Locally grown produce does not have to be transported long distances to make it to your dinner table, thus less fossil fuel. Much of the local produce we have to choose from in the Dallas area is also organic. Ask your local farmer about their particular growing standards. There are several farmers markets across the Dallas area that features many local farmers eager for business. Many farmers markets are now accepting WIC vouchers. To help a family find a local farmer's market in their area, have them go to: http://apps.ams.usda.gov/FarmersMarkets.

Consensus Recommendations

Based on all of this data, here is a summary of things to consider:

- Buy local produce whenever possible.
- Reduce pesticide residues and other contaminants on foods by washing and scrubbing all produce under streaming water or vinegar with 3% hydrogen peroxide solution; discarding any cut produce that has been unrefrigerated for four hours or more; and trimming visible fat and skin from meat and poultry, as pesticide residues can collect in fat.
- Eat a variety of foods from different sources. That includes a variety of fruits and vegetables, not just the same family favorites.
- Prioritize. You may choose to spend any organic food dollars on produce that contains the highest pesticide residue. Again, the ones with the highest residue (also called The Dirty Dozen) include *peaches, apples, sweet bell peppers, celery, nectarines, strawberries, cherries, pears, grapes, spinach, lettuce and potatoes*