A September, 2010, study currently making waves in the organic arena, showed that organic strawberries had 8.5% more antioxidant activity and 10.5% more phenolics than conventional berries by laboratory findings. As has been documented these compounds offer significant human health benefits for protection against disease. This novel study will most likely pave the way for future studies necessary to clarify issues involved in the lively “Are Organic Products Healthier?” debate, as it used an interdisciplinary methodology and wide range of quantitative measurements. (Reganold JP, et al. (2010) Fruit and Soil Quality of Organic and Conventional Strawberry Agroecosystems. PLoS ONE 5(9): e12346. doi:10.1371/journal.pone.0012346)

Another critical point to bear in mind is that being “organic” is a certification that farmers must pay for. Many farmer’s markets sell produce that is grown locally and according to organic protocol, but might not be labeled as “organic” simply because the farmer can’t afford to go through the certification process.

At the end of the day, how do we make sense of all of this? Do we agree with the principle behind organic farming, yes we do! Farming practices should use a minimum of pesticides and chemicals. Yes, the soil should be improved, and biodiversity encouraged. Yes, we want to encourage practices that enhance the ecology. Yes, we want more tasty fruit and vegetables that maximize their nutritional potential to enhance our health! But we don’t want to be ignorant of the realities regarding the term “organic”.

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products are completely free of residues; however, methods are used to minimize pollution from air, soil and water.”

Most of us are probably not aware that under certain circumstances, the certifying agency may permit a farmer to use other “non-persistent or botanical pest controls” under restricted conditions. Hmm, what is meant by “non-persistent”? According to Aaron Blair, an epidemiologist at the National Cancer Institute, almost all pesticides currently used in farming (e.g. organophosphates, carbamates and pyrethroids) are “non-persistent”, i.e., they are quickly broken down in our bodies and aren’t stored.

Even if produce is certified organic, and has been grown and handled according to the protocol without chemical additives, organic crops may be inadvertently exposed to agricultural chemicals that are now pervasive in rain and ground water (due to their overuse during the past fifty years) as was found in a 2002 study by Consumers Union and the Organic Materials Review Institute (OMRI) of Eugene, Oregon. The study showed that one in four organic fruits and vegetables contained a pesticide. Fortunately, those amounts were usually smaller than what was found on conventional food. OMRI Research Director Brian Baker explained that these findings are due to background contamination and pesticide drift. Even though DDT and dieldrin were banned decades ago, traces can still be found in the soil…even on “organically certified” farmland producing “organically certified” produce. (Older, banned pesticides were “less” toxic, but more residual. Current pesticides are “more” toxic, but non-persistent, or break down faster.) Baker also explains that pesticide contamination of organic produce can be a result of spraying on nearby conventional farms, where wind drift can carry the chemicals over “organic” farmland.

Let’s leave those concerns a moment to consider the bioengineering aspect. As reported on March 14, 2007 in a Time/CNN article, a dairy farmer tested his cow’s “organic” corn feed, and found that 6% of it was “contaminated” with genetically modified organisms. As genetically modified crops are becoming more and more prevalent, there is little that can be done to prevent pollen or seed from ending up on “organic” certified farmland. Genetically modified pollen and seed can be spread by wind, farm machinery or a number of other mechanisms.

There is a danger that we throw out the proverbial baby with the bathwater in our attempts to be healthy. In our zeal to avoid exposure to pesticides and genetically modified organisms we could be at risk of limiting our intake of a variety of fresh fruit and vegetables, because we can’t afford to buy all our produce as “organic”, or because there just isn’t a wide variety of organic produce available. The health benefit of eating more fruit and vegetables has been well documented in a number of reputable journals, and the volume of evidence is continually mounting. According to Charles Benbrook, chief scientist at the Organic Center in Boulder, Colorado, the chemicals on your fruit and veggies are of less concern than other aspects we often laugh off, such as our saturated fat and salt intakes, our exposure to tobacco smoke or our lack of exercise.

The bottom line is: yes, we want to limit pesticide exposure, but the truth is, we’re better off getting our fruits and veggies with some pesticides, rather than not eating any, or not eating enough fruit and veggies. Most of us can’t afford to buy everything “organic” anyway, and according to the Environmental Working Group, consumers can cut their pesticide exposure by 80% by avoiding the most contaminated fruits and vegetables, or buying those items “organic”.

The “Dirty Dozen” list reflects measurable pesticide residues on the parts of the foods normally consumed (i.e. after being washed and peeled), and can help with decision making in the supermarket aisle. If you can purchase these items “organic”, it would be preferable, but if you can’t, remember there are other health habits that are worse than getting some pesticide residues from your food. These are the 2010 “Dirty Dozen”: celery, peaches, strawberries, apples, blueberries, nectarines, bell peppers, spinach, kale, cherries, potatoes and grapes.

The “Clean Foods” you shouldn’t have to worry about are as follows: onions, avocado, sweet corn, pineapple, mango, asparagus, sweet peas, kiwi, cabbage, eggplant, papaya, watermelon, broccoli and sweet potatoes.