John Stossel, co-anchor of ABC’s “20/20,” delivered a half-hearted apology August 1 for falsifying evidence in a report that claimed organic produce is potentially more dangerous than food raised using toxic agrochemicals, antibiotics, added hormones, genetically engineered seeds and massive animal-feeding factories. In his apology, Stossel admitted that some tests he relied on to support his conclusion had never been conducted.

Similarly, Dennis Avery published an article entitled “The Hidden Dangers in Organic Food” in the Fall, 1998, issue of American Outlook, a quarterly publication published by the Hudson Institute. Avery’s article began, “According to recent data and familiarity for Disease Control (CDC), people who eat ‘organic and natural foods are eight times as likely as the rest of the population to be attacked by a deadly new strain of E. coli bacteria (0157:H7).”

As with Stossel, Avery fabricated the evidence: a statement from Dr. Mitchell Cohen of the Centers for Disease Control stated that: “Since 1982, most of the outbreaks of Escherichia coli 0157:H7 have been associated with foods of bovine origin (e.g. - ground beef). In recent years, a wider spectrum of foods, including produce, have been recognized as causes of outbreaks. The Centers for Disease Control and Prevention (CDC) has not conducted any study that compares or quantifies the specific risk for infection with Escherichia coli 0157:H7 and eating either conventionally grown or organic/natural foods.”

A University of Minnesota study concerning fecal E. coli in fresh picked produce by Makhjere et al, published in the Journal of Food Protection (Vo 67, No. 5, 2004) found that the percentage of E. coli prevalence in certified organic produce was similar to that in conventional samples. However, it did find a marked difference in the prevalence of E. coli between the samples from certified and non-certified organic farms. “Ours is the first study that suggests a potential association between organic certification and reduced E. coli prevalence,” the authors wrote. They noted that the results of the study “do not support allegations that certified organic produce is potentially more dangerous than conventional produce; it’s simply that the studies have not been completed.”

Using USDA Census numbers, 330 farmers leave the land between 1990 and 2010 according to the Economic Research Service (MOSES). The price of conventional foods also does not factor in environmental and human health costs—costs that are shifted to all of us in other ways.

There are three primary reasons organic food is more expensive:
- Synthetic fertilizers and many pesticides are time and labor savers. There are the primary reasons that conventional farmers use them: they reduce the cost of production. Organic farmers substitute labor, management, observation and time for these chemicals—which increases the cost of production, but benefits the environment, human health and quality of life.
- Organic farmers must be certified by a 3rd party. The organic certification process costs money, but maintains the integrity and trust of organic foods.
- Organic farmers deserve a sustainable price for their efforts. The higher price of organic food helps to ensure that farmers stay in business.

**Myth:** Organic Food is too Expensive

**Fact:** Organic Food is Worth the Extra Cost

According to the USDA Economic Research Service, American’s spend 9.9% of their disposable income on food—the lowest percentage anywhere in the world. Twenty years ago, the number was closer to 12% and in the years after World War II that number was closer to 20%. At the same time the farmer’s share of the food dollar has fallen steadily, from 41 cents per dollar in 1950 to about 20 cents today.

There are also costs not included in the store price of conventional food. Subsidies, paid for by our tax dollars, were $261.9 Billion dollars between 1990 and 2010 according to the Environmental Working Group. The price of conventional food also does not factor in environmental and human health costs—costs that are shifted to all of us in other ways.

**Myth:** Organic Cannot Feed the World

This criticism is mostly based on the “lower production per acre” premise. Here are some actual quotes that exemplify this myth:

“Organic is too small and unproductive to ever be the ‘solution’ to our need to simultaneously feed the world and protect the environment.”

“Organic Crops Alone Cannot Feed the World,” March 10, 2011

“Organic is an impractical system of food production that is unsustainable, primarily because it is simply incapable of feeding the world.”

Avery’s article was published in the Fall, 1998, issue of American Outlook, a quarterly publication published by the Hudson Institute.

**Fact:** Organic Can Feed the World

Rodale Institute 30-Year Farming Systems Trial Rodale has recently completed their report on the longest side-by-side conventional vs. organic farming systems trial ever completed in the United States. Here are some of their conclusions:
- Organic yields match conventional yields in long-term trials.
- Organic outperforms conventional in years of drought.
- Organic farming systems build rather than deplete soil organic matter, making it a more sustainable system.
- Organic farming uses 45% less energy and is more efficient.
- Conventional systems produce 45% more greenhouse gases.
- Organic farming systems are more profitable than conventional.

**Myth:** Organic farming is unsustainable, primarily because it is simply incapable of feeding the world.

**Fact:** Organic Farming can Feed the World

“Many people believe that organic farming involves little to no pesticide use. I hate to burst the bubble, but that’s simply not true. Organic farming, just like other forms of agriculture, still uses pesticides and fungicides to prevent and control plant diseases and limit crop damage.”

“MYTHBUSTING 101: Organic Farming” July 18, 2011

**Allegation:** Organic Farmers Use Pesticides!

Organic crop systems can provide similar yields and much higher economic returns than a conventional corn-soybean rotation, according to 13 years of data from a side-by-side comparison at Iowa State University’s Neal-Kinkan Research and Demonstration Farm.

Some of the findings from this experiment:
- Averages from 13 years of the LTAR experiment show that yields of organic corn, soybean and oats have been equivalent to or greater than conventional counterparts.
- On average, returns to management (after deducting labor, land and production costs) for organic systems are roughly $200 per acre greater than conventional returns, according to actual LTAR data and modeling.
- Organic systems have lower production costs because they eliminate the need for expensive herbicides and synthetic fertilizers.
- The results suggest that organic farming can create greater efficiency in nutrient use and higher carbon sequestration potential.

**Myth:** Organic Farming isn’t more green than conventional farming.

**Fact:** Organic Farming is far more environmentally sustainable than conventional farming.

Midwest Organic and Sustainable Education Service (MOSES) | PO BOX 339, Spring Valley, WI 715-778-5775 | info@moseorganic.org | www.moseorganic.org

The Midwest Organic and Sustainable Education Service (MOSES) provides education and resources to farmers to encourage organic and sustainable farming practices. To learn more, please visit:

www.moseorganic.org
Fact: Organic Farmer Do Not Use Persistent Organic Pollutants

While it is true that organic farmers can use natural pesticides, and even a few synthetic ones, these inputs must be approved for use by the National Organic Standards- pesticides that have been reviewed and approved by the National Organic Standards Board. This is a unique and very open process, where materials are proposed, public discussion allowed and final decisions made by the Board based upon the National Organic Standards and the input from the organic community.

All pesticides on the National List of Allowed Substances are restricted use. An organic farmer can only use pesti-cides if their cultural and biological controls have failed. Pesticides in an Organic System Plan are never primary control options. This is a very important distinction- in many conventional farming systems, pesticides are primary inputs that are used whether the actual pest pres-sure (Roundup is a good example).

There are really three primary considerations that must be considered when looking at pesticides: toxicity, carcinoge-nicity, and persistence in the environment.

Toxicity: All pesticides are toxic; that is how they kill pests. It is the level of toxicity that needs to be considered. The most toxic natural pesticides have been prohibited under the NOS. Nicotine and rotenone are both prohibited despite being natural, because of their high toxicity.

Carcinogenicity: Is a pesticide carcinogenic? The Envi-ronmental Protection Agency weighs the economic value of a pesticide against the negatives (like carcinogenicity) when approving them. Unfortunately, the true impact of synthetic chemicals is often learned at a later date and then discontinued.

• Of the 28 pesticides estimated by EPA to be most widely used in agriculture, more than 40 percent are classified by the EPA as likely, probable, or possible carcinogens*- none of which are allowed under the National Organic Standards.

• There is a total of 34 “Food Use” pesticides classified by the EPA as potential human carcinogens*- none of which are allowed under the National Organic Standards.

Persistence: This is the length of time it takes for a pes-ticide to break down in the environment. Pesticides that are not toxic, are not restricted use, and are used very little represent the greatest threat to human and environmental health. Of the EPA’s “Dirty Dozen” Persistent Organic Pollutants, nine are agricultural pesticides and none of them are allowed under the National Organic Standards.

Allegation: Organic Foods Have Pesticide Residues

Organic skeptics charge that studies have found pesticide residues on organic foods, therefore the integrity of organic food must be called into question. Or worse, they imply that organic farmers are cheating. These are the often-cited studies:

• Just over 1% of organic foodstuffs produced in 2007 and tested by the European Food Safety Authority were found to contain pesticide levels above maximum levels – and these are of pesticides that are not organic.

• “Consumer Reports purchased a thousand pounds of to-matoes, peaches, green bell peppers, and apples in five cities and California Delicious Pomegranates and sprouts by the Consumers Union, show “convincingly that organically grown foods have fewer and generally lower pesticide residues than conventionally grown foods. This pattern was consistent across all three independent data sets. Organic foods typically contain pesticide residues only one-third as often as conventionally grown foods do. Organic samples are also far less likely to contain multiple residues than conventional foods are. The Agriculture Department data showed that 73 percent of the conventionally grown foods had residue from at least one pesticide and were six times as likely as organic to contain multiple pesticide residues; only 23 percent of the organic samples of the same groups had any residue. The California data found residues in 31 per-cent of the convention foods and 6.5 percent in the organic. Consumer Union test found residues on 79 percent of the conventional samples and 27 percent on the organic.


FACT: Organic Foods Have Fewer and Lower Pesti-cide Residue Levels

Of course just looking at pesticide residues on organic foods is not a complete analysis; you need to compare the results of both conventional and organic produce to get the whole story. Fortunately, this type of study has been done and the results are enlightening.

An analysis of pesticide residue data from 94,000 food samples, including 1259 organic samples, taken by the USDA, the California Delicious Pomegranate study by the Consumers Union, show “convincingly that organically grown foods have fewer and generally lower pesticide residues than conventionally grown foods. This pattern was consistent across all three independent data sets. Organic foods typically contain pesticide residues only one-third as often as conventionally grown foods do. Organic samples are also far less likely to contain multiple residues than conventional foods are. The Agriculture Department data showed that 73 percent of the conventionally grown foods had residue from at least one pesticide and were six times as likely as organic to contain multiple pesticide residues; only 23 percent of the organic samples of the same groups had any residue. The California data found residues in 31 percent of the conventional food and 6.5 percent in the organic. Consumer Union test found residues on 79 percent of the conventional samples and 27 percent on the organic.


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FACT: New Research Shows That Organic Food is More Nutrient Dense and Higher in Antioxidants

Organic foods also do not contain artificial flavors, sweet-eners, preservatives or genetically modified organisms, organic farming pro-duces more nutritious food. This pattern was consistent across all three independent data sets. Organic foods typically contain pesticide residues only one-third as often as conventionally grown foods do. Organic samples are also far less likely to contain multiple residues than conventional foods are. The Agriculture Department data showed that 73 percent of the conventionally grown foods had residue from at least one pesticide and were six times as likely as organic to contain multiple pesticide residues; only 23 percent of the organic samples of the same groups had any residue. The California data found residues in 31 percent of the conventional food and 6.5 percent in the organic. Consumer Union test found residues on 79 percent of the conventional samples and 27 percent on the organic.


Improper storage or by commingling with conventional food products at the wholesale and retail food chain.

The main point is that organic foods have been shown to drastrically reduce a consumer’s exposure to pesticide residues. It is also important to note that farmers and manufacturers of certi-fied organic products have never made any guarantee of their foods being “pesticide-free.” This is an impossible claim due to the ubiquitous presence of pesticides in our environment.

Myth: Organic Food is Not More Nutritious

“Some people believe that by not using manufactured chemi-cals or genetically modified organisms, organic farming pro-duces more nutritious food. However, science simply cannot find any evidence that organic foods are in any way healthier than non-organic ones—and scientists have been comparing the two for over 50 years.”

Christie Wilcox, Scientific American, “Mythbusting 101: Or-ganic Farming” July 18, 2011

FACT: Organic Food is Not More Nutritious

Myth: Organic Food is More dangerous

• Organic food has higher levels of E. coli and salmonella risk of contamination.

• Organic food is more dangerous.

ABC’s tests showing increased levels of E.coli bacteria in or- ganic sprouts and lettuce. He also maintained that the tests found no pesticide residue in either the conventional or organic food. The problem was that Stossel fabricated the story—no tests were ever conducted.

We live in a polluted world. Pesticide residues can happen on any food, regardless of whether it is organic or conventionally grown. Organic skepticism and criticism has been used by the natural and conventional food industries to create a climate of fear and misinformation.

Fact: There is no evidence to support the claim that organic food is more dangerous.