
Marketing & The Organic Food Industry:

A history of food fears, market manipulation and misleading consumers.

By Graydon Forrer, Alex Avery and John Carlisle

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“Years of black propaganda from the organic fringe, backed by the BSE tragedy, have had a perceptible effect on consumer views... By their very nature (organics) promote health and food safety, implying that non-organic food is somehow unhealthy and dangerous.”

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Introduction

In May of this year (5/19/2000), the National Center for Public Policy Research released survey data indicating that 85 percent of Americans, despite evidence to the contrary, believe organic foods are safer, healthier, more nutritious or better for the environment than those grown by conventional methods.ⁱ In the United Kingdom, during the same week, Britain's largest supermarket chain was found guilty of misleading consumers over the benefits of organic foods by the official government Advertising Standards Authority (ASA). According to this government advertising watchdog group, Tesco Markets made numerous false and unfounded claims for the health, taste and price of organic foods. Citing "unacceptable appeals to people's fears," the watchdog agency also found another UK supermarket firm, Iceland Foods, guilty of making false and misleading claims that foods derived from biotechnology crops were dangerous to win customers over to purchase higher priced organic foods.ⁱⁱⁱ

The National Center suggests in releasing this survey that proposed USDA guidelines for "organic" labels and marketing will mislead consumers about perceived safety, nutrition, environmental benefits and quality of organic foods. Additionally, the proposed federal guidelines will contribute to and perpetuate a history of inappropriate and unfounded product disparagement and "food fear" marketing strategies intrinsic to the growth and success of the organic and natural products retail industry.

The Organic Trade Association (OTA), the U.S. Department of Agriculture, the UK Government's Food Standards Agency, numerous published research reports and academic experts all conclude that organ-

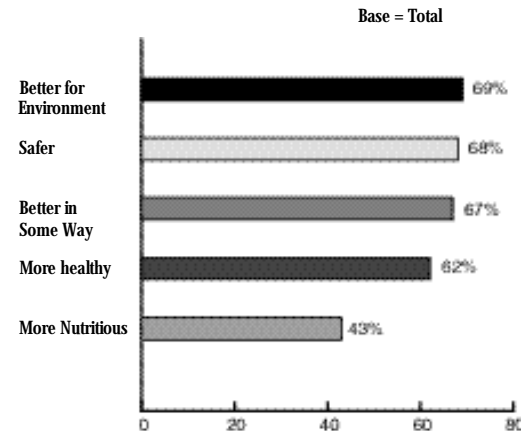
ic certification does not convey safety or nutritional information and that there is no evidence of safety or nutritional benefits for organic foods over conventionally grown products. Nonetheless, as a result of a successful effort by the organic food industry to alter public opinion, the overwhelming majority of consumers believe that "organic" is better, safer or more nutritious.

Numerous other groups, such as the Scottish Crop Research Institute, Center for Global Food Issues and the European Science and Environment Forum, also challenge claims that organic production methods are better for the environment. Citing use of organic copper-based fungicides and other allowable practices, SCRI has called some organic practices "clearly unhealthful and damaging to the environment." SCRI adds, "The balance of environmental advantages and disadvantages in the organic system is not clear. SCRI explored organic environmental claims and found that **less intensive application of conventional methods achieves the same results. In fact, the organic standard recommendation to compost manures before**

"Consumers mistakenly believe that organic-grown food provides more vitamins and minerals, while there is no scientific evidence that this is true,"

Laurie Demerit, The Hartman Group

USDA Seal Would Mean...



The vast majority (85%) feel that the USDA Certified Organic seal would mean that foods with the label excelled in at least one of the five attributes tested (better in some way; safer; more healthy; better for the environment; and more nutritious). In fact, one-third (31%) feel the organic seal would mean all of the attributes, and over-half (52%) feel the seal would mean at least four of the attributes.^{iv}

using them is a practice that ensures significant loss of nitrogen to the atmosphere as ammonia. It is ecologically unsound."^v

WebMD and CNN reported in March 2000 that even when organic foods begin to carry official federal seals, it doesn't mean that the foods are more nutritious, citing Laurie Demerit of the market research firm The Hartman Group. Several years ago, the firm found that people who bought organic produce and products did so to support an environmentally sensitive approach to farming. "Today they're saying it's better for their health and that of their kids."^{vi}

Sir John Krebs, chairman of the UK Government's Food Standards Agency, told the BBC that consumers of organic food are wasting their money if they think they are buying something which is safer or more nutritious than conventionally grown food and that there was no evidence that organic food was healthier than conventionally grown

produce. He stated, "They're not getting value for money, in my opinion and in the opinion of the Food Standards Agency, if they think they're buying food with extra nutritional quality or extra safety. We don't have the evidence to support those claims. I think the organic industry relies on image and that image is one that many consumers clearly want to sign up to. However, I do think (consumers) should be aware of what they're getting when they pay quite a substantial premium in the shops." ^{vii}

Why then the current growth in organic food sales? Why do consumers believe higher-priced organic foods to be safer, more nutritious or better in other qualities? What factors drive these beliefs and images and who is responsible?

This essay explores the history and market forces that disparage non-organic, conventionally grown foods and that are specifically designed to create broad public misperceptions over food safety issues in the U.S. and abroad. We conclude, based on several decades of well-documented evidence, that organic and natural product retailers knowingly and with calculation engage in a broad range of fear-based marketing activities disparaging safe and more affordable products to win customers over to more expensive "organic" and "natural" marketed products. These activities include direct marketing programs, trade and consumer association lobby groups, and the establishment, funding and coordination of numerous tax-sheltered "non-profit" groups to support these black marketing campaigns. This "food scare" industry has evolved and expanded well beyond food marketing to now include everything from cleaning products to mutual funds, imposing a premium-based fear tax on the consuming public.

Is organic marketing breaking new ground in the ongoing campaign against conventional food?

In the Fall of 1998 the United States Department of Agriculture solicited comments for proposed regulations governing the use of the term "organic" for growing and marketing food. Over 275,000 comments were submitted^{viii}, the most ever on any one topic.

The majority of these comments were electronic form letters and comment cards generated by an aggressive and well-funded campaign organized, in large part, to stop USDA's proposal to include irradiated and genetically engineered foods in the definition of organic as well as food grown using treated sludge waste.^{ix}

While other federal agencies discount or reject such form letters in making public policy decisions, in May 2000 the Secretary of Agriculture announced that due to the large number of these comments the proposed rules would be rewritten and specifically exclude irradiation, sludge and genetically engineered seeds. Finalized regulations are pending while other aspects of the proposed rules are reviewed.

Over the years, organic growers have adopted new technologies and techniques to improve their production, while reducing reliance upon chemical pesticides.^x Many researchers and agricultural policy experts have expressed surprise at the sudden outcry from organic trade, advocacy and industry group to ban technologies which help reduce chemical use while increasing yields. In an interview with Gourmet Magazine, plant biologist Dr. Roger Beachy expressed surprise at the strong reaction from organic industry groups towards biotechnology crops. "We expected that organic farmers would love it," stated Beachy speaking of biotechnology-improved crops which incorporate a naturally occurring soil bacterium already used by organic farmers in spray form to help plants resist pests.^{xi} Similarly, Dr. Chris Sommerville of the Carnegies Institute notes, "One of the ironies of the current conflict between the proponents and opponents of GMOs is that the technology is inherently green..."^{xii}

Numerous organic industry marketing experts quoted throughout this report suggest that retailers fear losing market share and the ability to charge consumers high premiums if consumer fears over GMO crops die down or if organic farmers can use GMOs to produce higher yielding, pesticide-free

foods at the same price as conventionally grown products. Additional research demonstrates clear marketing opportunism by the organic industry to take advantage of and promote consumer fears of conventional foods.

The volume, shared content and source of comments generated to USDA on this topic reflects the highly organized and coordinated nature of the organic and natural food industry, natural products retailers, organic consumer organizations and organic trade association groups who lobbied USDA on the potential impact biotechnology and other novel applications in agriculture may have on their growing share of the consumer premium-priced food market. These efforts provide insight into the marketing strategies and use of non-profit front groups by organic and natural products industry interests to leverage food scares. In addition, this demonstrates their collusion to protect and expand their share of consumer food purchases.

The chart (on page 5) and similarity in content of form letters suggests one public relations firm and their "non-profit" front organization helped orchestrate a massive form letter campaign to USDA suggesting certain safe, tested and regulated agricultural practices were inferior, incompatible and unsafe for the public and unfit for organic marketing. Fenton Communications and Environmental Media Services, both of whom represent a wide range of organic and natural products industry concerns, were successful in their efforts to dramatically alter proposed USDA regulations.

Perhaps best known for orchestrating the false Alar pesticide scare in 1989 or the now debunked breast cancer fears associated with Dow Corning breast implants, Fenton has a long list of food and product scare campaign experience from which to draw support for his clients' marketing and fundraising efforts.^{xiv} Fenton's other organic and natural products clients who benefited from this campaign include: Honest Tea, Kashi Cereals, Ben & Jerry's, Seventh Generation and the Body Shop. Some of his other non-profit clients using the biotech-

Top sources of form letters to USDA and their public affairs firms affiliation

Source	Public Relations firm affiliation	Number of form letters
Working Assets	Fenton Communications	35,989
Sustain USA Organic Trade Association	Environmental Media Services (EMS) *partner	20,656
Rodale's Publishing	Fenton Communications	17,338
Organic Farmers Marketing Association	Environmental Media Services (EMS) *partner	11,667
Save Organic Standards Center for Food Safety	Environmental Media Services (EMS) *partner	11,349
Mothers for Natural Law	Environmental Media Services *partner	4,594
PureFood Campaign Center for Food Safety	Environmental Media Services (EMS) *partner	2,885
Center for Science in the Public Interest	Fenton Communications	1,977

Source: USDA, Fenton Communication client list, press releases and various news reports.^{xiii}
 * Environmental Media Services (EMS) was, according to numerous published reports, created by Fenton Communications. EMS partners participate in Fenton supported press conferences and other media and public relations activities. EMS shares staff, location and other resources with Fenton Communications. EMS is a project of the Tides Center, which provides tax-deductible "donor directed" funds to EMS from such entities as Working Assets and other donor groups (many of whom are also Fenton Communications clients). In addition, The Tides Center's 1998 IRS form 990 tax returns made available from Guidestar.org note Fenton Communications as their second largest recipient of these tax-exempt funds in payment for services.

nology-organic issue for tax-deductible fundraising purposes include Greenpeace, Environmental Defense, Natural Resources Defense Council, Public Citizen, Consumers Union, and the National Environmental Trust.^{xv}

Combined, these Fenton for-profit organic and natural products industry clients represent over \$1 billion in annual sales, and these "non-profit" advocacy group clients have combined annual budgets well in excess of \$500 million.^{xvi} Over the past few years, these groups have dedicated tens of millions to advertising, advocacy and lobbying campaigns to spread fears over such issues as biotechnology, food irradiation, pesticides and treated sludge.

A report by Farm Journal and AgWeb.com released in September 2000 exposes, "A growing gang of environmental organizations is targeting modern agricultural practices for eradication. Funded with tax-free dollars, establishment environmental groups

are nurturing activist offspring to influence the international policy agenda."^{xvii} In fact, according to North Carolina State professor Thomas J. Hoban, "This anti-biotechnology campaign is a key marketing strategy for the organic industry."^{xviii}

New tools, old techniques

Supported by well-funded public affairs operations, this campaign also marks the new and powerful role the Internet plays in supporting for-profit and other special interest group campaigns to market products and influence public policy.^{xix} These groups' use and infiltration of this new technology at every level exceeds most other industry groups' reported lobbying or marketing efforts. Calling it "brilliant propaganda," The Harvard Business Review reports that protest groups like Greenpeace are gaining the upper hand on the Internet protesting such issues as genetic modification.^{xx} From controlling content

for search engine directories, orchestrating on-line demonstrations, launching cyber-attacks on competitors, targeting investors with negative information, proliferating advocacy web sites and organizing bulletin boards and listserv's the organic and natural products industry and their affiliated interest groups control massive amounts of e-real estate influencing public opinion.

Organic interests aligned with environmental action and economic justice groups, such as Greenpeace, the Foundation for Economic Trends and Friends of the Earth – whose leadership, fundraising sources and public relations arms already had strong ties to the organic industry^{xxi} – used the Internet's new media and its inherent anonymity and lack of scientific accountability, along side of traditional media to assert claims that biotechnology, irradiation and other conventional practices might be unsafe for consumers, bad for the environment, harmful to the small farm economy or damaging to organic agriculture through cross pollination or by increasing insect resistance to organic chemical pesticide applications.^{xxii}

"Without Internet organizing, these protests [at international trade and political meetings] couldn't have happened," says Tom Lalley of Environmental Media Services.^{xxiii}

Additionally, a U.S. Federal Trade Commission (FTC) and Food & Drug Administration (FDA) investigation concluded in April of this year that organic and natural product retail web sites make questionable claims about the benefits of their products and the risks of their competitors' products. The federal investigators' 10-month campaign known as Operation Cure-All found that more than 400 web sites made questionable claims that their products are useful to treat serious diseases and other health claims. For example, the FTC investigation found that one Colorado organic and natural food retailer illegally claimed that his products would cure cancer, AIDS and other illnesses. Natural Heritage Enterprises was found guilty of making false and mis-

leading health claims to lure consumers to their products.^{xxiv}

The investigation showed that many of these claims were akin to those made by snake oil salesmen in the 1800s; These new age huckster's sales wagons are now high-speed modems and web sites. The government prosecutors noted these web sites used "deceptive high-tech marketing techniques" to draw Web surfers or convey misleading messages.

“Right now, Europe is freaking out about genetically altered produce. That’s an opening for U.S. organic growers,”

1999 Summit on Organic Food Technology, California organizer Gay Franklin.

Using a similar tactic, Millenium Organic, a U.K. enterprise which is not under the scrutiny of U.S. regulators, promotes similar unsubstantiated claims “behind the scenes” of their up-front promotions. Using source coding meta-tag’s their web site display’s the words “Organically grown food is free of chemical substances and the nutritional value is far greater” when you mouse over their name. However, those claims appear no where else in their published materials.^{xxv}

The organic industry clearly acknowledges the sales and marketing benefits of food fear campaigns.

This campaign, including use of new Internet marketing tools, establishes the potential for a new growth era for the organic food industry. As more and more food marketing retailers move to on-line sales, the current black marketing product disparagement dominance of organic and natu-

ral products interests on the Internet could emerge as a significant factor and concern for conventional outlets.

One recent and clear example is the organic and natural products industry campaign against genetic engineering of crops. American organic retailers see the current public attention on genetically modified foods and the variety of food scares emanating from Europe as a key marketing opportunity.

At the 1999 Summit on Organic Food Technology in California organizer Gay Franklin noted, “Right now, Europe is freaking out about genetically altered produce. That’s an opening for U.S. organic growers.”^{xxvi} How that “opening” is exploited in the U.S. and Europe represents a window into a history of “black” marketing and product disparagement by the \$10 billion and growing organic retail industry in the U.S. and Europe. However, as this industry seeks to expand its reach, these marketing practices may backfire and emerge as a key concern for consumers and a point-of-interest for government regulators and watchdog groups that could negatively affect growth in the organic marketplace.

This campaign has spawned a proliferation of anti-biotechnology web sites promoted by interest groups funded by the organic industry as well as by the for-profit domains themselves. WholeFoods, Ben & Jerry’s, and Calvert Socially Responsible Investments are among dozens of com-

panies whose web sites offer information and links suggesting health, environmental or ethical concerns over biotechnology and other conventional agriculture methods.^{xxvii} In the past year, organic co-ops, organic gardening supply stores, and other organic and natural product retailer fronts have spread anti-biotechnology fear marketing messages in customer newsletters, e-mail, catalogues and in-store promotions.

On the heels of a 1999 Consumers Union report on pesticide residues on produce, one leading organic retailer acknowledged the benefits of food scares. *“Media scares always help sales at Bread & Circus,” claims store assistant manager, Dorothy Baumann. Such reports start people “questioning where their food comes from,” and providing answers to those questions is one of the services that Bread & Circus stores offer,* she adds.^{xxviii} Bread & Circus is part of the Whole Foods Market food chain which is currently supporting activist group efforts to label and ban foods derived from biotechnology.^{xxix}

The Organic Times, a leading organic industry trade newsletter, published a 1995 guide for organic retailers entitled: *“Answering Your Customers Food Safety Questions — Customers frequently ask retailers tough food safety questions and the answers can often translate into increased organic food sales.”* The article provides talking points on alleged cancer causing chemicals and dangers posed to children from eating non-organic foods. *The Organic Times* leads off this Q&A primer noting, “Polls indicate that this anxiety remains a contributing factor to sustained, dramatic increases in organic food sales—despite the fact that the label “organic” is not a food-safety claim. No where in the Q&A are retailers provided guidance or talking points on organic food safety claims or concerns.”^{xxx}

Leaders in the organic retail industry clearly and publicly discuss their core

growth strategy as moving customers away from conventional suppliers. The number two organic retailer, Wild Oats Market President Jim Lee remarked on these marketing goals comparing his store and the leading natural foods market Whole Foods: "They are very similar in many respects. *Both companies understand that the opportunity for growth is in taking the customer from the conventional supermarket.*"^{xxxix}

"Non-profit" advocacy or for-profit marketing, the lines blur.

In some cases the line between "non-profit" advocacy funded with tax exempt funds promoting organic products (while attacking conventional competition), and for-profit organic ventures becomes blurred. The conflicting interests are rarely disclosed. The Institute for Agriculture Trade Policy, for example, a Minnesota-based advocacy group with funding and strong ties to organic industry interests runs the biotech-activist@IATP.org Internet list-serv, hosts the Consumer Choice Council web site, and offers numerous other on-line information links and resources to pro-organic, anti-conventional agriculture materials. These links, resources and Internet postings include information and instructions on "direct action" campaigns that target conventional agri-business, research facilities and government sponsored field trial locations for vandalism.

In addition, IATP's founder Mark Ritchie and IATP budget director Neil Ritchie are frequent speakers, organizers, and tax-deductible fundraisers for protests against conventional agriculture. At the same time, IATP notes on its IRS form 990 tax filings that they have a for-profit organic retail subsidiary, Headwaters International, Inc. Neil Ritchie is also noted as a financial partner in this for-profit organic coffee firm, also called "Peace Coffee," co-located with IATP and whose web site

administration and finances are managed through the non-profit IATP administrative offices.^{xxxix} Headwaters, Inc. has also received tens of thousands in payments from the non-profit Tides Center.^{xxxiii} Conveniently, Mark Ritchie is also noted as the registered agent on the Tides Center's incorporation filing documents.^{xxxiv}

Two other examples where for-profit interests and "non-profit" advocacy con-mingle with little disclosure include organic and natural products industry lobbyist and Full Spectrum Health president Craig Winter and Andy Kimbrell and his Center for Food Safety:

Craig Winters, for example, hosts the non-profit "The Campaign to Label Genetically Engineered Foods." The Campaign, supported by dozens of leading organic retailers and product companies, including Whole Foods, United Natural Foods, Eden Organic and Wild Oats Markets, warns of the dangers of genetically modified foods and promotes organic alternatives. Many of these retailers specifically market and advertise their products as GMO-free.^{xxxv} In addition, Winter's Full Spectrum health provides sales, marketing and other services to the natural products industry. Winters also serves on the board of the National Nutritional Foods Association, an organic and natural products industry organization.^{xxxvi}

Similarly the Center for Food Safety (CFS), which shares links with Winters' groups, hosts a range of anti-conventional agriculture, anti-biotechnology, pro-organic projects, advertising campaigns and lawsuits. These include: the Turning Point Campaign's (co-hosted by IATP) multi-million dollar advertising program attacking biotechnology and conventional agriculture, the CropChoice coalition alternative agriculture news service (co-hosted with IATP), and the Organic Consumers Association & Pure Food campaigns against biotechnology and conventional production methods. CFS's programs note funding from Eden Organic

Foods and Patagonia (organic cotton), and their board members include such leading organic industry members as registered lobbyist Roger Blobaum, International Organic Accreditation Service director Jim Riddle, and Rodale's Organic Magazine Editor Cheryl Long.^{xxxvii}

The success or failure of these types of marketing efforts to expand the acceptability of organic foods among mainstream consumers and to pressure non-organic retailers to mainstream their offerings of organic products over the next few years may determine if the organic food industry can emerge as a defining new force in food and agriculture production. Limiting factors could include new regulatory or legal constraints against black marketing practices relegating this movement to local premium-priced specialty markets and footnoted among the many passing food fads of the 20th century.

Making the numbers, growth drivers and marketing focus

Today the organic food industry is big business in the United States and Europe. Growth in overall sales for organic products rose 20 to 30 percent annually over much of the past decade. In the U.S., organic product sales represent a \$6 billion industry.^{xxxviii} Combined with organic sales in Europe, this industry now tops \$10 billion annually. Sales growth in certain organic sectors in the U.S., such as baby food, increased by more than 110% in 1998-1999.^{xxxix}

This incredible growth in sales is attributable to strong economic conditions, increased consumer environmental concerns and, in significant part, to a variety of well publicized food and health concerns over chemical pesticide use, mad cow disease and most recently genetically modified "Frankenfoods."^{xl} Indeed, polling and other market data suggest

food scares to be the single most important factor in organic sales growth. In the United Kingdom, where food scares are openly acknowledged as the single most important factor in increased organic sales, media investigations have found evidence of price gouging by organic retailers by as much as 169 percent during times of heightened public concern.^{xii}

Whether the disparity between inconsistent and lower sales growth against steady and increased profits in the U.S. by such retailers as Whole Foods and Wild Oats is attributable to consumer price gouging has not yet been investigated. However, evidence suggests that organic retailer's prices and profit margins far outpace sales increases. These double and triple digit growth in profits coincides with anti-biotechnology food marketing campaigns. Regardless, the issue of food scares as a principal driver for organic marketing is clearly on the minds of U.S. and European organic industry representatives.

Examples of U.S. organic and natural product retailers or suppliers who have seen significant profit growth outpacing sales during the first year of the biotechnology " Frankenfood " scare campaigns:

Retailer or supplier	Sales growth 1997-1998	Profit growth 1997-1998
United Natural Foods	15 percent	38 percent
Ben & Jerry's	20 percent	60 percent
Whole Foods	24 percent	80 percent
Wild Oats	26 percent	65 percent
Hain Food Group	59 percent	208 percent

Selection of publicly traded organic and natural product companies, sales and profit growth data from SEC filings.

At the 1999 Organic Food Conference in Scotland, growers were warned that the potential for growth in the organic market would be limited if the perceived "threats to safe food production are removed" and that the "potential to develop the organic market would be limited if the sector remains fragmented, consumers are satisfied with food safety and the furor over genetic modification dies down."

According to conference speaker Katy Hamilton, a food marketing consultant with Promar, "If the threats posed by cheaper conventionally-produced products are removed, then the potential to develop organic foods will be limited."^{xiii} The food trade journal *Agra Europe*^{xliii} noted that recent consumer concern over food safety has sent the popularity of organic food soaring.

This trend also exists in the U.S. where several food trade journals report that the latest food safety scares are having a direct impact on the growth of organic food product sales.^{xliii} Marketing magazine recently noted that consumer anxiety over food safety has fueled the dramatic rise in organic food sales, making this once niche market the target of major retailers and food manufacturers.^{xliii} ***Years of black propaganda from the organic fringe, backed by the BSE (Mad Cow) tragedy, have had a perceptible effect on consumer views.***^{xliii}

According to reports in the *Journal of Applied Economics* and *Public Relations Quarterly* one of the first major increases in organic sales followed a 1989 CBS News 60 Minutes report on a Natural Resources Defense Council (NRDC) and Consumers Union indictment on the safety of Alar, a growth hormone used on apples.^{xliii} The demand for organic produce soared in the months following this report which was subsequently discounted.

The Alar scare publicity was orchestrated for NRDC and Consumers

Union by Fenton Communications, which also represents Greenpeace and Friends of the Earth. Fenton also shares staff and resources with their "non-profit" arm, Environmental Media Services. Fenton recently launched the "GE Food Alert" coalition and consumer boycott campaign to pressure food companies like Campbell's Soup and Kelloggs to abandon biotechnology-crop ingredients.^{xliii} Fenton also represents such organic and natural products industry interests as Honest Tea, Kashi Cereals & Grains, Rodale's, Ben & Jerry's and the Body Shop. These groups are currently a driving force behind the biotech food scares in the U.S. and Europe. Fenton Communication's client list also include Working Assets, The Calvert Fund for Socially Responsible Investing and several other 'green' products companies and interests promoting and benefiting from the growth in market share linked to these scares.^{xlix}

That food scares increase organic sales is well documented and reported in natural products marketing and retail publications. Similar increases in organic sales occurred in the United States following other food scares relating to watermelons (aldicarb), grapes (cyanide) and peppers (aldicarb). These scares were also promoted by Fenton's clients NRDC, Consumers Union, Greenpeace, Environmental Media Services and others.¹

However, while overall sales grew, the increases were not sustained at peak levels generated during and immediately following these food scares. In addition, these increases were often limited to specific produce group sales and offset by sales decreases in other organic produce areas suggesting limits to the total amount of disposable income consumers are willing to spend on premium priced organic.¹ This suggests the need to sustain and maintain broad-based food

scares to grow or just maintain organic product market share.

Recently, organic dairy sales increased based on reports, also promoted by Fenton Communications and its clients, linking biotechnology-developed growth hormones used in the dairy industry to cancer.^{lii} These claims, comprehensively discredited by scientists, health care providers, medical professional associations and government

noted by the Fenton example, continue to leverage these claims for increased sales.^{liv}

In the wake of these foods scares, major supermarket chains have increased the availability as well as the cost of premium priced organic offerings. A 1999 study by the Observer Newspaper found prices for “organic” offerings in some markets increased by well over 100% as more consumers

could increase their food costs by nearly \$4,000 to \$10,977 per year.^{lix}

What the industry tells us about organic foods

“Healthier Holidays with Organic Wine,” is the cover story for the November 1999 issue of Whole Life Times found in organic and natural food markets across the U.S. While readers are tempted with the “spiritual” benefits of purchasing “ultra-organic” or “cosmic” wine, the article fails to mention any health distinctions or claims over conventional vintages to back up their bold cover page.^{lx}

Reporting on the USDA proposed organic rules CNN recently quoted a range of organic advocates who claimed weight loss, relief of disease and increased health associated with their conversion to organic foods. True to form, Organic Trade Association director Katherine DiMatteo used her air time to avoid any reference to organic benefits, while issuing warnings about conventional foods and pesticides focusing on their “impact on children, on women and the elderly.” In response, Dr. Christine Bruhn, director of the Center for Consumer Research at the University of California-Davis noted, “There is no evidence that is true. I hope (consumers) will understand what organic means and make this an informed choice.”^{lxi}

Organic retailer Fresh Fields, owned by Whole Foods, was required to defend its advertising programs to the Commonwealth of Virginia’s Department of Agriculture and Consumer Services, investigating claims that Fresh Fields made false and misleading claims about non-organic beef to promote organic sales. In response, Fresh Fields declined to admit any wrongdoing, but they nonetheless pulled the offending advertisements.^{lxii}

“If the threats posed by cheaper conventionally-produced products are removed, then the potential to develop organic foods will be limited.”

Katy Hamilton, a food marketing consultant with Promar

regulators, have been widely reported in the New York Times, ABC World News Tonight and dozens of other mainstream media. Growth in the premium priced organic dairy sales attributed to this scare has spiked to more than 100 percent a year despite the fact that the Food and Drug Administration, the U.S. Secretary of Health and Human Services, and American Cancer Society have all rejected these cancer and safety claims.^{liii}

Former U.S. Surgeon General C. Everett Koop addressed this dairy growth hormone issue, stating, **“Unfortunately, a few fringe groups are using misleading statements and blatant falsehoods as part of a long-running campaign to scare consumers about a perfectly safe food.** Their long-range goal is to prevent the benefits of biotechnology from reaching the public... it is necessary to condemn these attacks on the safety of milk for what they are: baseless, manipulative and completely irresponsible.”^{liv} Still, organic dairy retailers and their public relations firms, as

began looking for organic or natural produce in the wake of the health scares about genetically modified food.^{lii} According to *Consumers Report*, in 1997 organic produce cost an average of 57 percent more than conventionally grown foods.^{liii}

Surveys show consumer willingness to pay the premiums required for organic food comes from the belief that in doing so they protect the environment while safeguarding their own health and that of farm workers.^{liiii} Research indicates limited elasticity in consumer demand for premium priced organic products, noting that increases in spending in one area of organic foods often is accompanied by decreased sales in other organic food areas. A significant limiting factor is cost, as demonstrated by the USDA Economic Research Service, which reports that in 1995 an average household with two parents and two children at home spent \$6,992 on food. Using the Consumers Union figures, a conversion to organic purchasing

Recently a Scottish Crop Research Institute report on organic food noted, *“Consumers should beware of mission-directed disinformation from pressure groups... There are many claims made of organic food, most unsubstantiated and many unwarranted. For example, common claims include: ‘Organic food is better for you.’”* The Institute added that major reports, “found no evidence for or against the safety of organic products. Conventional and organic are equally safe. Further, the evidence given to them by the British Nutrition Foundation was that “the nutritional value of organic crops is likely to be the same as that of conventionally grown crops”^{lxiii}

However, many organic product providers continue to advertise these claims, juxtaposed to “potential” dangers of conventional or biotechnology-improved crops. For example, the August 2000 edition of Food & Wine Magazine offers advertising from Eden organic soymilk claiming to be free from “GE” ingredients, “better tasting and more nutritious,” and suggesting their product will cure “menopausal symptoms, protect against certain kinds of cancer, relieve pain, and prevent osteoporosis.” Eden also funds several anti-biotechnology activist campaign groups.

New York State Consumer Protection Board spokeswoman Pat Rodriguez, testifying before a legislative committee noted consumers should not take for granted that products labeled, “light,” “high-fiber,” “natural” or “organic” are necessarily healthy foods.^{lxiv} Yet, according to the industry-funded Organic Consumers Association, organic food is good for our health because it provides “peak nutrition and maximum health benefits.” In addition, they note that organic food can protect children from cancer-causing pesticides found in conventional food and that organic

foods taste better.^{lxv}

The Organic Trade Association’s “Campaign to Keep Organic, Organic” notes: “When you purchase organic foods, you’re creating a safer, healthier food supply... Organic foods are grown without the use of toxic and persistent chemicals, so the amount of pesticide residues in our food, our soil, and our ground water is drastically reduced.”^{lxvi}

Ironically, the latest craze has some organic groups promoting cigarettes

grown with organic tobacco. Santa Fe Tobacco’s “American Spirits” are now sold in natural products and health food stores across the U.S. Their organic cigarette brands are now enjoying featured product placements on television sit-coms and with such Hollywood icons as John Travolta, Leonardo di Caprio, Johnny Depp and super model Jerry Hall. Claiming, “It’s healthier for the farmer and healthier for the land,” organic certifying agents at the Carolina Farm Stewardship

Examples of recent organic food contamination		
Tesco Markets (UK) organic mushrooms	E. coli contamination found in May 2000	Product recalled
Organic Valley Vegetable Soup (United Kingdom)	botulism spores found in cans of soup in May 1999	Product recalled
Morningland Dairy Farms of Mountain View, MO (USA) organic cheddar cheese	bacteria <i>listeria monocytogenes</i> found in June 1999	Product recalled from 10 states
Morningland Dairy Farms (USA) organic colby cheese	<i>listeria</i> contamination found in May 1999	Product recalled
The Sprout People (USA) organic alfalfa sprouts	<i>salmonella</i> contamination found in August – October 1999	19 people reported food poisoning, product recalled
Aussie Gold organic juice (Australia)	<i>salmonella</i> contamination found April 1999	400 illnesses reported
Glaser Organic Farms Strawberry, Papaya, Apple Juices (USA)	<i>salmonella</i> and E. coli contamination in October 1998	Products recalled
Odwalla brand juices (USA)	E. coli outbreak in November 1996 49	illnesses and one child death reported Product recalled
Stueve’s Natural Milk and Cream products (USA)	<i>salmonella</i> contamination in May 1998	Product removed from stores
Organic parsley (GERMANY)	<i>citrobacter freundii</i> contamination	9 illnesses and one child death reported.
Organic-labeled “AltaDena Dairies” products (USA)	<i>salmonella</i> contamination found in November 1986	Products recalled
Maine organic produce	E. coli contamination Summer 1992	One child death and several illnesses reported
Healthy Times Baby Oatmeal (USA)	live insects found in packages in November 1997	Product removed from shelves

Brief History of Organic Agriculture

The beginnings of modern organic agriculture are generally attributed to Great Britain and the writings of Sir Albert Howard and Lady Eve Balfour in the 1940s. Howard based his views on research of Indian peasant traditions involving soil composting. At the age of 17 Lady Balfour reportedly launched her efforts to compare various farming techniques in response to a publication in 1938 incorrectly predicting famine in Britain caused by agriculture practices of that time. While at odds over various aspects of their research^{lxxvii}, their combined efforts helped establish the organic movement which espoused a philosophy that the health of plants, soil, livestock, and people are interrelated and that farming practices should work in harmony with nature, using inputs produced on farms.^{lxxviii}

Antecedents of modern organic agriculture also include the biodynamic movement founded in the 1920s by Rudolf Steiner which placed significance on clairvoyance and spiritual forces in agricultural methods and production that restored the 'life force' of the soil. Biodynamic agriculture still exists today and is seen among purists in the organic community as meeting extremely high spiritual as well as ecological standards. In fact, *Demeter Certified* biodynamic foods command a premium price among devotees over already premium priced organically grown produce. According to one expert, "Biodynamic farming makes ordinary organic farming look about as spiritual as strip-mining."^{lxxix}

In 1942, J.I. Rodale introduced organic agriculture in the U.S. with the publication of *Organic Farming and Gardening* magazine. Rodale advocated an approach to farming based in part on Biodynamic principals and understanding and working with natural systems rather than attempting to control them. Organic farming, both in the U.S. and Europe, has evolved primarily as a reaction against conventional farming practices popularized by the introduction of high-intensity agriculture in the post-WWII era.^{lxxx} Today, Rodale's Publishing has grown to be a major player in the

organic industry and driving force behind marketing and, as demonstrated in their role generating comments to USDA, protecting organic production in the U.S.

In the late 1940s and into the 1950s, new agricultural inputs, production techniques and farm chemicals boosted agricultural productivity at relatively low cost. The use of new agricultural chemicals and fertilizers ushered in *the Green Revolution*, dramatically increasing agricultural yields and making it possible to feed the world's increasing population, without having to use more and more land for agriculture.

For example, from 1950 to 1992, there was a 170 percent increase in food production from just one percent more land.^{lxxxi} The success of this *Green Revolution* contributed to a lack of growth and mainstream interest in the organic movement. Low yield concerns in organic production today are still seen as a growth-limiting factor and "moderate to serious problem" for over half of all organic farmers.^{lxxxii}

However, the publication in 1962 of Rachel Carson's *Silent Spring*, a brilliantly written yet scientifically flawed critique of pesticide use in conventional agriculture, gave rise a renewed focus on organic agriculture, and increased legislative and regulatory oversight over farming.^{lxxxiii}

Still, reported health concerns associated with eating organically produced foods, as well as quality issues, lower yields, availability and economic conditions in the 1960s and 1970s continued to hold back organic market growth. Based on concerns over lack of standards in the organic food sector, several states and private organizations established certifying agencies and a variety of organic standards in the mid 1970s.^{lxxxiv} This helped launch a more formal organic industry; however, real gains in market share and the creation of an organized organic industry were only realized in the late 1980s and 1990s.

Association are promoting this as a way to convert more growers to organic production methods.

Enjoying annual sales in excess of \$75 million, Santa Fe Tobacco chief executive Robin Sommers rationalized his product and promotions to the Charlotte Observer noting, "People are going to smoke, I don't care what you do, so let's make the best product for people who have chosen to smoke. We look at ourselves as doing something quite meaningful in addition to the sheer capitalistic aspect."^{lxvii}

When pressed on the issue of organic health and nutritional claims, Organic Trade Association director Kathy DiMatteo noted in an August 1999 press release that, "Organic stands for a production system that strives to work in balance with nature, using methods and materials that are of low impact to the environment. It does not mean that organic foods are produced in a haphazard or unsafe manner." DiMatteo has also noted, "There's no body of scientific evidence that states you can detect the nutritional difference between a piece of fruit grown one way and a piece of fruit grown another way."^{lxviii}

Responding to DiMatteo's comments that organic foods were not safer or more nutritious than conventional foods during a February 4, 2000, interview, ABC News' John Stossel stated, "There's a sales campaign to dream about. The organic industry admits organics are no more nutritious than other foods. But their customers still think it is."

Consumer Reports notes that "many customers are willing to pay extra for organic because they believe the food is safer and healthier." Cancer concerns are frequently and prominently cited in organic industry web sites, press releases and marketing materials as a reason why consumers chose organic products. One

1999 press release announcing the availability of a new line of organic products in mainstream supermarkets noted, "**Concerns about cancer and food safety are major factors**" in the **annual growth of organic foods.**^{lxix}

Most organic industry marketing materials do not make positive health claims specific to organic as much as they cite food safety concerns associated with non-organic foods. Organic industry representatives tend to be careful in making outright health claims beyond defending organic products to be as equally safe as conventionally grown foods, while clearly pointing out unsubstantiated or vague concerns with their less expensive conventional counterparts.

Again, Christine Bruhn, consumer food-marketing specialist at the University of California, Davis notes, "Organic farming is a philosophy of farming; it doesn't guarantee greater safety." Bruhn adds, "There's no documented difference in nutritional content." People concerned about the nutritional content of their fresh foods should pay more attention to how they are stored than how they are grown, she added. "Temperatures are more important than growing procedures. If a food is to be refrigerated, refrigerate it or it will lose some of its nutritional value."

Bruhn and other experts note that foods produced conventionally or with biotechnology are equally safe — for the consumer, the farm worker and the environment. According to Bruhn, the application of pesticides approved for organic farming actually may be more harmful to farm workers and the environment than synthetic pesticides because the natural are apt to be shorter lived, and therefore may have to be applied more often.^{lxx}

One organic industry newsletter reports that Regina Hildwine of the National Food Processors Association stated during the debate over organic

standards in 1998, "Organic does not mean safer. Organic does not mean healthier."^{lxxi} Several organic industry critics have also noted that in 1996, two of the biggest outbreaks of food poisoning from E. coli were traced to organic lettuce and un-pasteurized apple juice sold in natural food stores. Using a CDC listing of 488 confirmed cases of E. coli outbreaks, critics have linked nearly a quarter of these cases to consuming organic or natural foods.

The CDC reports that the data does not conclusively link the deaths to organic food; however, in 1997, CDC epidemiologist Robert Tauxe told the "Journal of the American Medical Association" that organic food may pose special problems, because it is "grown in animal manure." Later, he wrote in JAMA that composting standards for organic food weren't stringent enough to kill bacteria.^{lxxii}

A recent paper by University of California at Davis scientists, titled 'Misconceptions on Pollution and the Causes of Cancer' reports that mortality rate from all cancers, except lung cancers caused by smoking, has declined in California since 1950 for all age groups except 85 and above. This decline coincided with the period of greatest growth in the use of pesticides on farms. The report also notes that any residues of pesticides in food are dwarfed by toxins which occur naturally in virtually all foods. Similar findings have been published about British diets by the Food Research Institute in England.^{lxxiii}

A study by The London Sunday Times revealed that compared with ordinary products, many processed organic foods contain higher levels of fat, sugar and salt — all of which can cause heart problems. Paul Fawcett, of the British Heart Foundation, warned that fads such as organic food could damage people's health. "We are not advocates of organic food — the public needs to be aware of the diet as a whole

and get out of a faddish mentality.”^{lxxxiv}

Proposals to increase food safety regulations over the organic food industry have been challenged in both the U.S. and Europe. The director of the British organic industry lobby claimed a proposed food standards agency would perpetuate the conflict of interests in their industry by giving too much weight to consumers.^{lxxxv}

In fact, often organic may not even be organic. Corroborating statements by the Organic Trade Association that less than 50 percent of products marketed as “organic” are certified, research published by Dr. Rossanne Philen of the U.S. Centers for Disease Control found that many products “are promoted to the public as being ‘natural’ and ‘organic,’ when in fact, most ingredients in these products are from manufactured or chemically derived sources.”^{lxxxvi}

The Emerging Organic Food Industry Today

Today the organic food industry is big business in the United States and Europe. Growth in overall sales for organic products has risen 20 to 30 percent every year over much of the past decade and organic product sales is now a \$6 billion industry in the United States.^{lxxxvii} Combined with organic sales in Europe, this industry now tops \$10 billion in annual sales. Sales growth in certain organic sectors in the U.S., such as baby food, increased by more than 110% in 1998-1999.^{lxxxviii} Some pro-organic activist groups have recently questioned if this growth has corrupted the values of the organic movement.^{lxxxviii}

The Organic Trade Association predicts organic industry sales in the U.S. will grow to more than \$6.6 billion this year.^{lxxxviii} Despite the rise in consumer demand and an equal increase in organic farming, organic production rates have not increased in line with sales growth.

In 1999, organic agriculture production still constituted less than one percent of the U.S. food supply.^{lxxxix} In Europe, growth in the organic and natural food industry has recently climbed by as much as 100% per year with supermarket sales in Britain alone now surpassing \$5 million a week.^{xc} Still, organic production levels in Europe also remain at about 1 percent of total food produced.

Indeed, the biggest growth in the organic industry has been at the retail level. In the U.S., Whole Foods Markets, one of the leading organic and natural foods supermarket, noted 1998 sales of more than \$1.3 billion with an increase in net income of more than 55 percent over 1997.^{xcii} Wild Oats, another organic retail market leader, posted 1998 sales of more than \$300 million with an increase in net income of more than 70 percent over 1997.^{xciii}

The organic and natural products industry is now tracked by Wall Street investment firms as a distinct market and includes such big business names as: Patagonia, US Nutraceuticals, Uncle Ben’s Inc., Paul Newman’s Own, Eden Foods, USANA, Horizon Dairy, H.J. Heinz Company, Chiquita Brands, Celestial Seasonings, and Sysco Corporation, among hundreds of others.^{xciii} Other major “natural” products companies that target products to the organic market and are members in organic trade groups include: Ben & Jerry’s and The Body Shop.^{xciv}

Sharing the wealth?

One key reason cited by consumers for organic purchases, in addition to health and environmental concerns, is support for small farmers. Organic advocates report that organic farming in the U.S. is becoming more profitable as consumers are willing to pay a premium for organic foods.^{xcv} While USDA data suggests it still lags behind conventional farm profitability; organ-

ic advocates claim that profitability will rise with consumer awareness and willingness to convert.^{xcvi} However, many economists suggest lower prices for organic products if more farmers convert and supplies increase.^{xcvii}

Note the distinction between financial success in the organic retail sector and the economic situation for organic growers: According to the most recent reports published by the Organic Farming Research Foundation, nearly half of all organic farmers gross less than \$15,000 a year from their organic products. By comparison, in 1996 the U.S. Department of labor reported the average poverty threshold for a family of four to be \$16,036. Three-quarters of organic producers make less than \$50,000.^{xcviii} Clearly organic retailers are not passing along the benefits of exponential growth implied by their farmer friendly marketing efforts.

Surveys show that organic farmers in Europe — where the organic industry is heavily subsidized and more highly developed — do not receive the same benefits as other point-of-sale segments of their industry’s gains. According to the Organic Advisory Service, an Agriculture Ministry body in the U.K., fewer than 20 percent of farmers in Britain switching to organic production methods see increases in profits. This is due to lower yields, conversion time and higher labor costs.^{xcix}

In Denmark, where government subsidies for organic growers are among the highest, fewer than two percent of farmers polled wanted to switch to organic based on fears of diseases and uncontrollable weeds, falls in income due to smaller yields, and a possible lack of markets for their products. In addition, they reported that they did not like the idea of working harder with more employees to meet the more labor-intensive production methods required by organic standards.^c

Recently farming groups in Sweden, joined by the Royal Academy of Agriculture and Forestry, criticized efforts to increase organic production as a politically motivated effort that will hurt consumers and create an oversupply that hurts farmers. This protest came in the wake of a report that Sweden's number one organic dairy producer, Arla, now produces 40 percent more organic milk than it can sell. The result has been a decline in profit as organic milk is sold as conventional at lower prices.^{ci}

How is “Organic” Agriculture Defined? Furthering Public Misperceptions

Unlike other agriculture practices such as use of biotechnology-improved crops, organic agriculture production is not currently regulated by any government agency and has no independent safety oversight body. Individual states and certifying organizations decide what is required to meet organic standards under their jurisdiction. Although the standards are becoming more uniform across the nation, there is no regulated or consistent definition for what constitutes organic agriculture. In fact, according to the Organic Trade Association, half of all food sold today as organic is not even certified.^{ciii}

In most cases, organic farming is defined by what organic farmers *do not do* or include rather than what they do include or how they do produce their products.^{civ}

Unlike other food label items, organically branded food is defined by production and processing methods created by a state or private certifying group and not end-product standards or nutritional composition. Indeed, foods labeled organic may still include a wide range of production inputs and techniques that differ from various certifying organizations.

California state regulations, for example, prohibit use of synthetic materials, while Texas regulations allows the use of some synthetic materials.^{cv}

A USDA science report concluded that there was no universally accepted definition of “organic farming.” Their report stated:


“The organic movement represents a spectrum of practices, attitudes, and philosophies. On the one hand are those organic practitioners who would not use chemical fertilizers or pesticides under any circumstances. These producers hold rigidly to their purist philosophy. At the other end of the spectrum, organic farmers espouse a more flexible approach. While striving to avoid the use of chemical fertilizers and pesticides, these practitioners do not rule them out entirely. Instead, when absolutely necessary, some fertilizers and also herbicides are very selectively and sparingly used as a second line of defense. Nevertheless, these farmers, too, consider themselves to be organic farmers.”^{cvi}

The rise in profitability of organic products in the past decade has made a nationally regulated standard for the term “organic” important to protect both consumers and producers. The Organic Foods Production Act (OFPA) of 1990, adopted as part of the 1990 Farm Bill, requires USDA to develop national standards and regulations for organically produced agricultural products and to assure consumers that agricultural products marketed as “organic” are consistent with these standards. The OFPA requires all agricultural products labeled as “organically produced” to originate from farms or handling operations certified by a state or private agency that has been accredited by the USDA. To date, the 1992 appointed USDA National Organic Standards Board has yet to implement any standards against which certifying agents

can be accredited. The board has defined organic agriculture as:

“(A)n ecological production management system that promotes and enhances biodiversity, biological cycles and soil biological activity. It is based on minimal use of off-farm inputs and on management practices that restore, maintain and enhance ecological harmony. ‘Organic’ is a labeling term that denotes products produced under the authority of the Organic Foods Production Act.

“The principal guidelines for organic production are to use materials and practices that enhance the ecological balance of natural systems and that integrate the parts of the farming system into an ecological whole. Organic agriculture practices cannot ensure that products are completely free of residues; however, methods are used to minimize pollution from air, soil and water. Organic food handlers, processors and retailers adhere to standards that maintain the integrity of organic agricultural products. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil, life, plants, animals, and people.”^{cvii}



“If you ask people to actually sit down and define what organic means, you get all kinds of different answers.”

U.S. Department of Agriculture Secretary Dan Glickman announcing proposed rules regarding organic agriculture in 1997.^{ciii}

Still, the International Federation of Organic Agriculture Movements definition for organic standards, also in “draft”, would not necessarily consider foods produced under the proposed USDA definition to be organic. This disagreement highlights some of the problems within the organic industry in establishing uniform standards against which they can be regulated.^{cviii}

In the U.S., more than 4,000 farmers and 600 handlers are certified by some 33 private or 12 state agencies. Each certifying agency has its own standards and identifying marks. No industry-wide agreement exists about which substances should be permitted or prohibited for organic production and handling.

Interpreting this standard by the various certifying organizations allows for a range of inputs and practices that includes allowing foods labeled organic to include up to five percent of their ingredients to be of non-organic origin (produced using synthetic chemicals) and allows for various applications of non-synthetic chemicals or “natural” pesticides. This wide range of non-synthetic chemicals and inputs includes:

- micro-bacterial sprays (some organic B.t. sprays formulations include sodium hydroxide, sulfuric acid, phosphoric acid, methyl paraben, potassium phosphate, and sodium sulfites.)^{cxix}, acid treated trace minerals (including: zinc, boron, copper, iron, manganese)
- sulfites
- sodium nitrate
- insecticidal soaps
- plastic mulch
- green manures
- chlorine washes
- antibiotics to treat infections
- liquid copper

Variations in standards and practices has caused consumers in Europe and the U.S. to call for tighter regulations of the organic food industry.

- sulfur
- pyrethrum
- ryania
- sabadilla
- colloidal phosphate,
- rotenone (a 500-year-old rat poison)^{cx}

A study published by the University of Tennessee’s Energy, Environment, and Resources Center and Oak Ridge National Laboratory reported that organic growers, on average, spray 100 times more natural pesticide per acre than a conventional grower who uses a synthetic pesticide.^{cxii}

According to The Journal of the American Dietetic Association, FDA surveys find similar pesticide levels in both organic and non-organic foods. Even when organic foods are grown according to state regulations, runoff water, soil shifting, and pesticides floating in the air may still result in pesticides getting on food.^{cxii} Other studies by consumer and government groups in the U.S., Canada and Europe note similar pesticide residue levels found on organic and conventionally grown produce.^{cxiii} The Organic Alliance specifically notes that “certified organic is not pesticide free.”^{cxiv}

Standards for monitoring compliance with the principles of organic agriculture and for the safety of the system are part of most organic certification systems. The standards usually require soil buildup efforts and the use of on farm inputs and limits or restricts inputs that are determined to be inconsistent with organic principles. Under most current organic cer-

tification systems, farms are inspected to make sure they comply. However, despite wide-spread public belief, standards and certification do not certify the safety, nutritional content or actual environmental benefit of organic production over other methods.

For example, most existing state and private certification agency organic standards restrict the use of raw manure by imposing certain conditions on its use on land used to grow crops intended for human consumption.

The proposed federal rule would provide for the use of raw manure on land that is not used to grow crops for human consumption. According to the USDA, application of manure, either composted or applied directly to a field is a common practice in organic agriculture. Concern over this practice has been raised as the result of recent reports linking it to outbreaks of salmonella, E. Coli 0157, *Citrobacter freundii* and other food related poisonings.

ABC News has reported that independent studies found an increase in bacterial contamination from certain organically produced produce over that of similar conventional, non-organic products.^{cxv} The Centers for Disease Control estimate that as many as 250 deaths and 20,000 illnesses per year are caused by this strain of E. coli found in pig manure used by organic farmers. The former chief of the food borne and diarrheal disease branch the CDC and, Lester Crawford, director of the Center for Food and Nutrition Policy at Georgetown University, have both noted concern

over risks associated with eating organic food if farmers “use improperly composted manure.” As part of efforts to address food safety issues regarding the use of manure, the proposed rule requests public input on guidelines for the use of raw and composted livestock manure in organic production of food intended for human consumption.^{cxvi}

Conclusion

Historically, the organic industry has grown and thrived as a result of food scares and the provocation of consumer distrust of the safety and quality of conventional food production. Today, organic retailers are engaged in a well-funded and executed, range of product disparagement and food fear promotions. This is found directly in their own marketing programs as well as indirectly in funding and supporting activist organizations who attack the safety of conventionally grown foods. Larger players and industry coalition groups tend to avoid litigation and negative regulatory exposure by funding “independent” activist groups who make unsubstantiated benefits claims for organic foods and make misleading or false risk statements associated with the conventional competitors offerings rather than include them as part of their direct marketing programs. And, these organic retail interests are driving private and USDA-proposed certifying standards and marketing programs principally to support premium priced market factors that are often in conflict with best sustainable agricultural practices, consumer and farmer interests.

Clearly maintaining a distinction between practices of organic growers versus those of organic and natural product retailers is important in evaluating the marketing practices of the organic industry. The Sustainable Agriculture Research and Education Program at the University of California, Davis (UC SAREP) empha-



“While we understand organic is important, it’s more realistic for farmers to adopt sustainable agricultural practices.”

Organic Trade Association member Ben & Jerry’s position statement on why they do not use organic ingredients in their ice cream.^{cxvii}

sizes that sustainable agriculture integrates three main goals — environmental health, economic profitability, and social and economic equity.

The organic industry is challenged by at least two of these goals. The organic industry needs to increase consumer demand for organic products while ensuring growth in supply does not reduce premium prices necessary to support the organic production chain. Economic studies have shown that growth in certain sectors of the organic industry coincide with reductions in other sectors suggesting a limited consumer economic elasticity for these premium priced products.

Producers will be challenged as increased media attention on organic food marketing efforts highlight the lack of scientific data to support health and safety claims. Organic producers are also at risk of losing market share with future incidents of product contamination, recalls or food poisonings. The organic industry also is at risk of consumer backlash against organic retailers’ use of unfounded food scares to generate increased sales.

Organic producers will be challenged with growing demands associated with increasing populations to increase crop yields and reduce the amount of land under cultivation.

With current organic yields at 60 to 80 percent of conventional agriculture this will require significant breakthroughs in organic production methods. Organic methods requiring more land to produce less food in the face of growing world hunger will need to be addressed. Simply meeting conventional yields will not meet the estimated 50 percent increase in demand for food production in the next 20 years. According to Nestle executive vice president Michael Garrett, three times more food will be needed by 2050 to feed the world’s expected nine billion people. Garrett notes, “organic farming could feed four billion at best.”^{cxviii}

Organic retailers will face increasing scrutiny from regulatory bodies, the media and conventional retailers as they attempt to maintain their growth and capture more of the conventional market. As demonstrated by recent actions in the U.K. by the Advertising Standards Board, and in the U.S. by the Federal Trade Commission; organic retailers are being exposed for misleading marketing campaigns, false benefits claims, and promoting unfounded fears over conventional products to gain new customers.

Absent new data to demonstrate the benefits of premium-priced organic products, new higher yielding production practices and universal consumer oriented certification that ensures safety of these products, the organic market today is built on a house of cards whose foundation is exposed to consumer backlash, competitor libel litigation and regulatory challenges. The continued failure to address these challenges with changes in proposed organic standards, the elimination of “black marketing” programs, increases to organic productivity and increasing consumer economic elasticity indicates that the current growth rates being enjoyed by the organic industry may never exceed its current one percent total market share.

- ⁱ Denny, Neill, Why organic has the power to alter all food marketing, Marketing, April 29, 1999 Pg. 19; ISSN: 0025-3650
- ⁱⁱ National Center for Public Policy press release: source: www.nationalcenter.org
- ⁱⁱⁱ Daily Mail Reporter, "So Hard to Swallow", The Daily Mail, pg. 35, May 10, 2000; and, Meikle, James, "Anti-GM claims misleading", The Guardian, pg 13, May 10, 2000
- ^{iv} National Center for Public Policy, The study was conducted via telephone omnibus on May 12 through May 16, 2000 by ICR. A total of 1,029 adults across the United States were surveyed; 508 males and 521 females. The results were weighted to reflect the US population.
- ^v MacKerron, D.K.L., et al., Organic Farming: Science and Belief, Scottish Crop Research Institute, 1999 Annual Report, found at: www.scri.sari.ac.uk; Bate, Roger, Separating Fact From Fiction, BBC Online, May 2000, found at: www. Error! Bookmark not defined.; and Center for Global Food Issues, Farming to Sustain the Environment, May 1996.
- ^{vi} Cosgrove, Christin, Living the 'organic' food lifestyle, March 23, 2000, http://www.cnn.com/2000/FOOD/news/03/23/organic.wmd/
- ^{vii} Crofts, Rachael, Organic Food No Safer or Healthier: Expert, PA Newsfile, September 1, 2000.
- ^{viii} Warren, Michael, Organic advocate now inside U.S.D.A. vows changes, Associated Press, August 3, 1999
- ^{ix} Organic Consumer Association "Pure Food" campaign found at http://www.purefood.org and The National Campaign for Sustainable Agriculture <campaign@magiccarrpet.com> and http://www.ams.usda.gov/nop/forms.htm and http://www.wald.com.
- ^x Thorn, Bret, "White Tiger Organic Farms Works To Introduce New Crops to Public", Nation's Restaurant News, pg. 116, March 20, 2000.
- ^{xi} Hall, Trish, "Friend or Foe", Gourmet Magazine, pg. 131, September, 2000.
- ^{xii} (Plant Physiology, August 2000, Vol. 123, pp. 1201-1202):
- ^{xiii} Mack, Sharon, "MOFGA backs Net site on genetically altered food", Bangor Daily News, pg. 1, May 8, 2000; www.ams.usda.gov/nop/forms.htm charts on form letter sources; Fenton Communications home page: www.fenton.com, client list; and various press releases issued over PR newswire. Arthur Silverman, director of communications at the Center for Science in the Public Interest, Washington, D.C., joined Fenton Communications, Washington, D.C., as one of the firm's top three senior executives – May 6, 1996.
- ^{xiv} Carlisle, John, et al., "The Fear Profiteers", National Center for Public Policy Report, August 2000, <www.NoMoreScares.com>
- ^{xv} The Fenton promoted "GE Food Alert" coalition web site: www.GEFoodAlert.org, solicits on-line contributions for the organizations promoting this scare. In addition, in the Spring of 2000 Environmental Defense engaged a direct mail fundraising program using reports of that biotechnology crops may harm Monarch butterfly populations as an "urgent" reason to contribute to their organization.
- ^{xvi} Sources include: WORKING ASSETS PRESS RELEASE, WORKING ASSETS BEGINS NEW MILLENNIUM BY CELEBRATING 15 YEARS OF SUCCESSFUL "SOCIAL CHANGE" BUSINESS AND \$20 MILLION IN DONATIONS TO PROGRESSIVE NONPROFITS, SAN FRANCISCO, (January 5, 2000) cites 1999 revenues exceeding \$140 million; Ben & Jerry's Home Made 1999 annual report filed with the Securities Exchange Commission noting revenues of \$572 million in 1999; Body Shop press release on 2000 annual report, Annual results for the 52 weeks to 26 February 2000 and The Body Shop partners with SOFTBANK Venture Capital to form new e-commerce enterprise
- Annual Results: Worldwide retail sales up 3% to £634.6 million; and annual reports of Greenpeace, NET, Environmental Defense, Consumers Union and NRDC.
- ^{xvii} Klintberg, Patricia P., "Gangs Against Modern Agriculture: Tax-free money takes anti-agriculture movement to the streets," Farm Journal, September 2000.
- ^{xviii} Hoban, Thomas J, Countering the myths of biotechnology acceptance, Grand Forks Herald, August 8, 2000.
- ^{xix} Lambrech, Bill, Biotechnology companies face new foe: The Internet, St. Louis Post Dispatch, Sunday, 19 September 1999.
- ^{xx} Berkeley, Simon, Web Attack, Harvard Business Review, September-October 2000.
- ^{xxi} Greenpeace UK director Lord Melchett is claimed to be among the largest organic farmers in Europe, Greenpeace U.S. receives funding from several organic advocates, and several founders of the U.S. organic movement are noted as coming from careers with Friends of The Earth. David Fenton, and Fenton Communications, represents Greenpeace, Friends of the Earth, other anti-GMO environmental groups and represents major players in the organic and natural food industry.
- ^{xxii} Note: according to surveys by the Organic Farming Research Foundation, fewer than half (45%) of organic growers surveyed actually use Bt sprays. February 5, 1999: THIRD BIENNIAL NATIONAL ORGANIC FARMERS' SURVEY
- ^{xxiii} Klintberg, September 2000.
- ^{xxiv} Hubler, Eric, Web site admits tea not cure-all, The Denver Post, April 8, 2000 Pg. C-01, and Gelles, Jeffrey, FTC announces settlements aimed at stopping companies from selling fake cure-alls, Philadelphia Inquirer, April 6, 2000.
- ^{xxv} Source coding from website: selbnet.co.uk/mil/org.html
- ^{xxvi} Rodebaugh, Dale, Organic Farm Seminar to Discuss Foreign Competition, SAN JOSE MERCURY, May 10, 1999
- ^{xxvii} Issues and links sections of WholeFoods.com, BenandJerrys.com and Calvert.com.
- ^{xxviii} Brown, Judson, "Supplying Info Buyers Demand", Daily Hampshire Gazette, pg. D1, March 8, 1999.
- ^{xxix} The Campaign to Label Genetically Engineered Foods press release, May 15, 2000. THE CAMPAIGN TO DISTRIBUTE 250,000 "TAKE ACTION PACKETS" TO RALLY SUPPORT FOR LABELING GENETICALLY ENGINEERED FOODS, www.TheCampaign.org. Note: Craig Winters is a lobbyist and marketing consultant to the organic and natural products industry. Winters affiliations and clients are noted at his personal web site http://www.CraigWinters.com.
- ^{xxx} Slama, Jim, Answering your customers food safety questions, Organic Times, September 1995, http://www.nfm-online.com/OT/Sep_95/OT_cert_corner.html
- ^{xxxi} Nachman-Hunt, Nancy, "Wild Oats Market Reinventing Itself" Organic and Natural News, July 2000, www.organicandnaturalnews.com/articles/071frank.html
- ^{xxxii} Diaz, Kevin, Ritchie's run for council has him in DFL hot seat, Star Tribune (Minneapolis, MN), September 2, 1997. Article notes "He's also involved in a startup business, Headwaters International, which markets coffee...." According to the Minnesota Secretary of State (record DCX8Y445) Headwaters International is located at 2105 First Avenue, Minneapolis, MN which is the same address for IATP. Headwaters product Peace Coffee promotes their coffee as 100 percent organic. According to Network Solutions "whois" Peacecoffee.com is registered to Headwaters, Inc; however, they note administrative and billing contacts as IATP. IATP also hosts the non-profit Consumer Choice Council, which hosts organic coffee promotions.
- ^{xxxiii} Tides Center 1998 IRS form 990 made available from Guidestar.org.
- ^{xxxiv} Minnesota Secretary of State corporate record number FCX79190.
- ^{xxxv} For example, Eden Organic Soy advertisement, Food & Wine Magazine, August 2000 notes: "GEO Free — The EDEN brand is your best assurance of freedom from genetically engineered organisms (GEOs) or their derivatives."
- ^{xxxvi} Sources: http://www.CraigWinters.com and http://www.TheCampaign.org.
- ^{xxxvii} Sources: http://www.ICTA.org, http://www.TurningPoint.org, http://www.OrganicConsumers.org, and http://www.PureFood.org.
- ^{xxxviii} Welsch, Rick, The Economics of Organic Grain

- and Soybean Production in the Midwestern United States, Policy Studies Report No. 13. P. 5, Henry A. Wallace Institute for Alternative Agriculture, June, 1999.
- xxxix Food for thought, Chemist & Druggist, July 24, 1999, Pg. 28 .
- xl The term "Frankenfood" was coined in the New York Times and popularized by their Sunday, April 1992 page one headline: Geneticists' Latest Discovery: Public Fear of 'Frankenfood'
- xli Ryle, Sarah (Consumer Affairs Correspondent), "Big four cash in on food scares, Supermarkets slap premiums of up to 169 per cent on 'green' groceries." Guardian Newspapers Limited — The Observer, March 29, 1999
- xlii Watson, Joe, Fear organic boom may be short-term, Aberdeen Press and Journal, February 26, 1999 Pg.19
- xliii Organics offering consumers sanctuary from GMOs, Agra Europe (London) Ltd. Eurofood, May 20, 1999, Pg. 5; 0955-5405
- xliv Latest Food Safety Scare May Boost Organic Industry and Vegetarianism, Food & Drink Weekly, June 7, 1999, No. 22, Vol. 5; Pg.1 ; 1044-1433
- xlv Murphy, Claire, Organic sector moves into the mainstream: includes some facts about organic foods: organic foods, Marketing, April 29, 1999, Pg. 14; ISSN: 0025-3650
- xlvi Why organic has the power to alter all food marketing, Marketing, April 29, 1999, Pg. 19; ISSN: 0025-3650
- xlvii Bodensteiner, Carol A, Predicting public and media attention span for social issues, Public Relations Quarterly, June 22, 1995, Vol. 40; No. 2 ; Pg. 14; ISSN: 0033-3700
- xlviii PR Newswire, Fenton Communications press release July 17, 2000.
- xliv Daley, David, "David Fenton Pitchman for the Politically Correct." The National Journal, October 3, 1992, Vol. 24, No. 40; Pg. 2266, and Fenton Communication client list posted to <http://www.fenton.com> Ben and Jerry's Homemade, Body Shop, Business for Social Responsibility, Calvert Social Investment Fund, Honest Tea, Kashi Cereal, Rodale Press, Seventh Generation, and Working Assets Long Distance.
- ¹ LOHR, LUANNE; PARK, TIMOTHY, Integrated markup rules for optimal pricing decisions in expanding markets for organic produce, Applied Economics, July 1, 1999, No. 7, Vol. 31; Pg. 885; ISSN: 0003-6846, IAC-ACC-NO: 55553542
- li Supply and demand factors for organic produce, American Journal of Agricultural Economics, August, 1996, No. 3, Vol. 78; Pg. 647; ISSN: 0002-9092 , IAC-ACC-NO: 19028428
- lii Murphy, Kate, More Buyers Asking: Got Milk Without Chemicals?, New York Times, August 1, 1999, Section 3; Page 6; and Fenton/EMS press release.
- liii Lawrence, JM, Don't have a cow, man! - Nutritionists: Dairy critics spout udder nonsense, The Boston Herald, July 6, 1998, Pg. 005; and US Government Response to rbST Questions Letter from Secretary Donna Shalala, to Senator James M. Jeffords – January 21, 1999
- liv Koop, C. Everett, M.D., Statement of C. Everett Koop, On The Introduction of Supplemental BST, February 6, 1994, <http://www.biotechknowledge.com>
- lv Wingate, Pamela, "Organic Dairy: The Little Niche That Could." Natural Food Merchandizers, May 1999.
- lvi Ryle, Sarah, Big four cash in on food scares: Supermarkets slap premiums of up to 169 per cent on 'green' groceries, Guardian Newspapers Limited — The Observer, March 29, 1999,
- lvii Berlau, John, The Risky Nature of Organics, Investor's Business Daily, March 3, 1999 Pg. A1
- lviii The Economics of Organic Grain and Soybean Production in the Midwestern United States, op.cit. P. 11.
- lix USDA/ERS Food Cost Review 1950-97, <http://www.ers.usda.gov>
- lx McLuskie, Carol, "Fruit of the Vine: biodynamic farming at Frey Vineyards." Whole Life Times, p. 42-43, November 1999.
- lxi <http://www.cnn.com/2000/FOOD/news/06/09/organic/>, CNN Report 06/09/2000.
- lxii Cox, Tim, Cattlemen beef over grocery chain ads, U.P.I., April 8, 1993
- lxiii MacKerron, DKL et al, Organic farming: Science and belief, Scottish Crop Research Institute 1999 Annual Report source: <http://www.scri.sari.ac.uk>
- lxiv O'Malley, Michael, Lawmakers call for accurate labeling of food, U.P.I., November 29, 1989
- lxv <http://www.organicconsumers.org>, Organic Consumers Association, "Why go organic" position paper.
- lxvi <http://www.saveorganic.org>, Campaign to keep organic, organic.
- lxvii Hopkins, Stella, Organic cigarettes made in N.C. sell from Charlotte to Hollywood, Charlotte Observer, September 8, 2000.
- lxviii Singer, Patti, Is Organic Produce Better for You than Non-Organic?, Gannet News Service, July 18, 1996 Is Organic Produce Better for You than Non-Organic?
- lxix The New Organics Company Offers First-Ever Line of Affordable Organic Products for Supermarkets: Product Launch Coincides with September's National Organic Harvest Month, Business Wire Press Release, September 8, 1997, <http://www.neworganics.com>
- lxx Dunne, Mike, The Facts – And Myths – of Organic Food, Sacramento Bee, April 19, 1995
- lxxi ORGANIC VIEW; VOLUME 1, NUMBER 2, Organic Consumers Association v. 1, n. 2
- lxxii Berlau, John, The Risky Nature of Organics, Investor's Business Daily, March 3, 1999 Pg. A1
- lxxiii Farmer's Viewpoint: Scientists reveal misconceptions about pesticide threat - There is ample evidence to confirm that 'inorganic' food is every bit as safe as the 'organic' alternative, Financial Times (London), November 12, 1991, Pg. 34
- lxxiv Bevan, Stephan, Warning: organic food can seriously damage your health, Sunday Times (London), September 12, 1999
- lxxv Maitland, Alison, Organic lobby attacks food safety plans, Financial Times (London), September 3, 1997, p 2.
- lxxvi Klinger, Karen, Claims for food may mislead, U.P.I., October 12, 1992
- lxxvii Waller, Robert, Obituary: Lady Eve Balfour, The Independent (London), p. 17, January 24, 1990
- lxxviii Klonsky, Karen, Organic Agricultural Production in the United States: Debates and Directions: Emergence of U.S. Organic Agriculture, American Agricultural Economics Association, American Journal of Agricultural Economics, 1998
- lxxix Gutman, Benjamin N., Ethical eating: Applying the kosher food regulatory regime to organic food, Yale Law Journal, June 1999, Vol. 108, No. 8, ppg 2351-2384
- lxxx Ibid.
- lxxxi Easterbrook, G., Forgotten Benefactor of Humanity, The Atlantic Magazine, January, 1997, p. 78.
- lxxxii Lipson, Mark and Hamner, Todd, "Organic Farming and Marketing Research" workshop as published in the Proceedings of the USDA Cooperative State Research, Education and Extension Service, October 29, 1998.
- lxxxiii Ibid.
- lxxxiv Oregon became the first state to certify organic production in 1974 and was followed in 1979 by California.
- lxxxv Welsh, Rick, The Economics of Organic Grain and Soybean Production in the Midwestern United States, Henry A. Wallace Institute for Alternative Agriculture, Policy Studies Report No. 13. P. 5., June, 1999
- lxxxvi Food for thought, Chemist & Druggist, July 24, 1999, Pg. 28

- lxxxvii Is Greenpeace Helping to Greenwash Biotechnology, Biotechnology Action Network, BAN, October 14, 1999.
- lxxxviii Berlau, John, The Risky Nature of Organics, Investor's Business Daily, March 3, 1999 Pg. A1
- lxxxix Organic Farming Research Foundation.
- xc Tickell, Oliver, Organic Foods: Reaching for the Converted: Suddenly Everyone Wants Organic Food, and Supermarkets are Already Gearing Up to Meet the Increased Demand, September 21, 1999, The UK Independent
- xcii Whole Foods Chairman John Mackey, Stakeholder's letter, http://www.wholefoods.com/other/wfar98/wfar98_chair.html
- xciii Wild Oats Press Release, Fourth Quarter and 1998 Operating Results, February 1, 1999, <http://www.wildoats.com/financial/OATS/1998.Q4.html>
- xciv Organic Trade Association membership listing, <http://www.ota.org>
- xcv Ben & Jerry's is listed as a member of the Organic Trade Association (<http://www.ota.org>) and markets rBGH-free ice cream. The Body Shop offers personal care products made from organically grown ingredients.
- cxvi Duram, Leslie A., Organic Agriculture in the U.S., Current Status and Future Regulation, American Agricultural Economics Association, 2d Quarter, 1998, v. 13 (2) pp. 34-38.
- cxvii Saunders, Melvin, Creative Alternatives for a Growing World, <http://www.tiac.net/users/seeker/creative.html>
- cxviii Thompson, Gary D., Consumer demand for organic foods: what we know and what we need to know: Emergence of U.S. Organic Agriculture, American Journal of Agricultural Economics, December 1, 1998 No. 5, Vol. 80: Pg. 1113
- cxix Lipson, Mark and Hamner, Todd, "Organic Farming and Marketing Research" workshop as published in the Proceedings of the USDA Cooperative State Research, Education and Extension Service, October 29, 1998. And, USDA, Agricultural Statistics 1999, Average Income to Farm Operator Households, IX-39.
- cc Urry, Maggie, Chemical free zones: Can money be made out of farming organically?, Financial Times (London), July 12, 1997
- c Dutch Farmers lack stimulus to go organic, Agra Europe, January 29, 1999
- ccii Sweden's 20% organic target heavily criticized, Agra Europe, September 10, 1999
- cii Organic Food Standards Announced, National Public Radio, All Things Considered, December 15, 1997
- ciii Remarks by Kathleen DiMatteo, executive director of the Organic Trade Association, on ABC's 20/20 "Is Organic Food Good For You," February 4, 2000.
- civ Church, John M., A Marketing Solution to Green Marketing: Some Lessons from the Economics of Information, 79 MINN. Law. Review. 245, 246 (1994)
- cv Gutman, Yale Law Journal
- cvi Report and Recommendations on Organic Farming, USDA Study Team on Organic Farming. USDA, July 1980
- cvii Organic Production: Recent Publications and Current Information Sources, United States Department of Agriculture, Agricultural Research Services Special Reference Briefs Series No. SRB 96-07.
- cviii IFOAM Standards Committee, basic standards, <http://www.ecoweb.dk/ifoam/>
- cix Swadener, Carrie, Bacillus thuringiensis (B.t.), Journal of Pesticide Reform, Volume 14, Number 3, Fall 1994. Northwest Coalition for Alternatives to Pesticides, Eugene, OR.
- cx Organic vegetables may be no safer than conventional ones, PR Newswire, August 13, 1993. KNOXVILLE, University of Tennessee and National Center for Food and Agriculture Policy Study Tenn., Aug. 13, and Organic Alliance, <http://www.organic.org>, What is Organic.
- cxii Organic vegetables may be no safer than conventional ones, PR Newswire, August 13, 1993. KNOXVILLE, University of Tennessee and National Center for Food and Agriculture Policy Study Tenn., Aug. 13
- cxiii Organic foods: are they better? Journal Am Dietet Assoc 1990;90(3):pp 367, 370
- cxiv Shapiro, Laura, Is Organic Better?, Newsweek, June 1, 1998, Pg. 54: "Consumer Reports recently tested organic and conventional produce and found pesticide residues on both..."; Organically grown' is no guarantee, San Diego Union-Tribune, August 21, 1986, pg.32: "Paying a premium price for organically grown produce is no guarantee that the food is free of pesticide residues. In fact, in a number of studies in different parts of the country, some so-called organically grown fruits and vegetables had higher pesticide residues than the same foods purchased in a nearby supermarket."; Boyd, ORGANIC NOT RESIDUE FREE, Farmers Weekly (UK), August 19, 1997, Pg. 8. By Boyd "ORGANICALLY grown food cannot be guaranteed to be free from traces of pesticides, according to government advisers. Ian Shaw, Working Party on Pesticide Residues chairman, said that even though organic food was grown without (synthetic) pesticide application,
- those eating organic produce, and especially organic bread, were still consuming harmless levels of pesticide residues." Pesticides found in organic food check, The Guardian (London), June 11, 1991: "The survey in Warwickshire found levels of pesticides in cereals and flours were often as high as in non-organic produce. In some cases, levels of lindane, a pesticide which attacks the nervous system, were close to government safety limits."; Italian consumer test shows organic products contain chemicals and pesticides: Natural & organic foodstuffs found to contain chemical residues, Agra Europe (London) Ltd. Eurofood, December 1, 1995: "A comprehensive investigation by the Italian Comitato Difesa Consumatori (Consumer Protection Agency) reveals that so-called 'natural' and 'organic' foodstuffs not only cost around six times more than conventional products but also contain chemical residues. Furthermore, another report carried out by the agency for the EU itself revealed that in 20 Italian shops specializing in organic food, only 26% of the food on sale was actually organic, the rest being either conventionally grown or of unknown origin."; Sauber, Colleen, M., The meaning of the word organic, Harvard Health Letter, April, 1994: "Some organic foods, for example, are grown with natural pesticides, and some supposedly pesticide-free foods have no chemical residues but were, nonetheless, dosed with synthetic pesticides. And some foods labeled organic contain residues from pesticides applied to the soil years before." Pearson, Liz, Ask a nutritionist: pesticide residues on fruits and vegetables, Chatelaine Magazine (Canada), July 1, 2000, No. 7, Vol. 73: "In tests conducted by the Canadian Food Inspection Agency in 1998 and 1999, only 12 per cent of fresh domestic produce was found to contain pesticide residues. Two per cent overall was found to exceed the maximum acceptable limit. During the same period, 17 per cent of all imported produce was found to contain pesticide residues and again only two per cent exceeded the acceptable limit. In other words, the majority of the produce we consume is free of pesticides." Is it really organic? the label implies it but it ain't necessarily so, American Health Magazine, July, 1990: "Last year, when 60 Minutes did a follow-up on its original Alar episode, the news magazine show tested 200 (organic) apple samples in 10 cities, and found that 30% of the apples labeled "No Alar" still contained the chemical."
- cxv "What is Organic," Organic Alliance paper, <http://www.organic.org>.
- cxvi Stossel, John, "How Good is Organic Food," ABC 20/20, February 4, 2000
- cxvii USDA National Organic Program Website, www.ams.usda.gov/nop
- cxviii <http://www.benjerry.com>, company information, questions and answers.
- cxix Miller, Claire, GM food the answer, says giant company, World Economic Forum, September 13, 2000, found at www.theage.com.au

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