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Organic Marketing Report

The global market for organic foods has reached $63 billion while the extended "natural" products marketplace exceeds $290 billion in the U.S. alone. The report explores the market research and corresponding industry strategies and factors behind the fastest growing consumer food and lifestyle trend in modern history.

A report commissioned by Academics Review, an independent 501(c)(3) nonprofit organization.[1]
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INTRODUCTION

Since the 1990s, the organic market in the United States has seen regular double-digit growth in annual sales (Organic Trade Association, 2013a) and the advent of mainstream brands offering consumers a wide range of organic products. This report reviews the market research into what motivates consumers to buy higher priced organic products and corresponding industry marketing tactics which resulted in this phenomenal sales growth.

The research findings which follow show that organic food marketers were well informed and repeatedly warned that absent consumer food safety concerns about less expensive conventionally grown foods, organic sector sales opportunities would be limited. **"If the threats posed by cheaper, conventionally produced products are removed, then the potential to develop organic foods will be limited," Kay Hamilton, of Promar International told attendees at the 1999 Organic Food Conference. Hamilton added that the potential for growth in the organic market would be limited if the perceived "threats to safe food production are removed".** Also, the "potential to develop the organic market would be limited" if the sector remains fragmented, consumers are satisfied with food safety and if the furor over genetic modification dies down. (Forrer, Avery & Carlisle, 2000)

Findings in this report show that Promar's counsel was neither unique nor outside of mainstream organic industry understanding of the key drivers for consumer adoption of higher priced organic products then or today. An extensive review of market research published over the past 25 years by organic and natural product marketers, corroborated by peer reviewed published academic and government funded studies, reveals that perceived safety concerns tied to pesticides, hormones, antibiotics and GMOs are the critical component driving sales in the organic food sector.

The following analysis, based on an extensive review of published research into consumer attitudes about organic products over the past 25 years, combined with an extensive analysis of documented organic and natural product industry practices, finds direct evidence that widespread, collaborative and pervasive industry marketing activities are a primary cause for false and misleading consumer health and safety perceptions about competing conventional foods. Further, this review finds no evidence that other unrelated sources[7] play a significant role in creating these consumer misperceptions.

Our review suggests a widespread organic and natural products industry pattern of research-informed and intentionally-deceptive marketing and advocacy related practices with the implied use and approval of the U.S. government endorsed USDA Organic Seal. Since its formal launch in 2001, the trade association arm of the organic industry has stated that the USDA Organic Seal endorsement has been a critical element in establishing consumer trust in their product offerings. The success of these efforts is evidenced by Organic Trade Association touted growth statistics showing an astounding 3400 percent increase from 1990 sales of $1 billion to the projected $35 billion in 2014. This accounts for total organic food expenditures by American consumers exceeding $300 billion in less than 25 years. (Organic Trade Association 2011c)

[1] *Academics Review is an association of academic professors, researchers, teachers and credentialed authors from around the world who are committed to the unsurpassed value of the peer review in establishing sound science in food and agriculture.*

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MODERN ORGANIC AGRICULTURE

While oft touted as the "traditional" way we used to farm, today's organic industry and practices are relatively young. The concept of organic production dates back to the days of author, ecologist and environmentalist, Aldo Leopold, who argued for the preservation of the 'biotic community.' In the 1940's J.I. Rodale founded *Organic Farming and Gardening*, a publication focused on the agricultural methods and health benefits of growing food "organically," or without synthetic chemicals (Gross, 2008). These early ideas and writings promoted a shift to chemical-free farms, food co-ops and counter-cuisine - a new way of eating that focused on whole grains and unprocessed organic ingredients beginning in the late 1960s.

Yet, in the past 35 years the definition or organic has evolved. According to *Appetite for Change*, the sixties counterculture changed the way we eat. Socio-political eco-advocacy events at the Berkeley, California People's Park marked the rise of organic agriculture in the United States during the time when Rachel Carson's *Silent Spring* was gaining visibility across the country (Belasco, 2007), and, as a result, concerns of toxic chemicals in our foods began to take hold as a defining cornerstone for organic consumers. When a *60 Minutes* episode aired in 1990 focused on the Alar scare, a growth-regulating chemical widely used in conventional orchards that the Environmental Protection Agency declared a carcinogen, headlines such as "Panic for Organic" set the organic industry up for mainstream consumer interest (Pollan, 2006).[8]

In January 2014 Wall Street Journal reporter Sarah Nassauer asked "What will make people pay $3 more for frozen pizza that says "organic" when they been eating non-organic pizza for years?" In her report, she characterized organic as a "health claim," noting that expanding the organic market is becoming more challenging to marketers using the organic label on its own to motivate buyers. In response, she reported Stonyfield Organic as making the decision in August of 2013 to add the term "no toxic pesticides used here" juxtaposed to their use of the USDA Organic seal on product labels. This move was explained by Stonyfield CEO Gary Hirshfield, who advocated the need to get consumers to believe "this [pesticide-free claim] is almost the same thing" as organic in order that they pay a premium for his products, providing the commercial logic in force here. (Naussauer, 2014)

Organic marketers often publicly proclaim consumer interest in the environment, ethical practices and sustainability are the drivers for sales. But a 2014 consumer research study by the European Food Information Council (EUFIC) found that traditional organic-associated "eco-labeling" claims linked to sustainability concepts are rarely translated into purchases and correspondingly sustainability labeling claims "do not play a major role in consumers' food choices." (Klaus, et al, 2014) However, other research (detailed in following sections of this report) reveals safety and health-related concerns tied to pesticides, hormones, antibiotics and GMOs not only influence, but are clear drivers of organic consumer purchasing behaviors.

Correspondingly, organic business marketing strategies and investments over the past 25 years reflect a clear and sophisticated understanding of this consumer research – creating, bolstering and spreading food safety concerns they link to competing conventional products to drive organic sales. Further, an industry-acknowledged and critical component of their success was the imprimatur of the United States government through the implied endorsement and approval of their products with the USDA Organic Seal.

While such government endorsement and use to convey safety, nutrition or quality distinctions is contradictory to both the USDA policy and past organic industry-assurances, it is now a common place practice with research-defined consumer misperceptions about food safety and health risks driving sales in this multi-billion dollar industry. Further, USDA's own research acknowledges the significant influence health, safety and nutrition perceptions attributed to the Organic seal play in the market growth of organic food sales. (Strochlic, 2005)

In 2014 the organic food industry has grown globally to more than $63 billion and is part of an even larger green industry market (SustainableBusiness.com, 2013). In one of its "Lifestyles of Health and Sustainability" (LOHAS) reports, the Natural Marketing Institute (NMI, 2010) reports that the natural living marketplace is valued at $290 billion in the United States alone.

U.S. GOVERNMENT & DEFINING ORGANIC

The United States Department of Agriculture (USDA) National Organic Standards Board (NOSB)'s (1995) definition for organic agriculture is closer to that of Aldo Leopold and his concept of becoming at one with the Earth focusing on the process by which organic foods are grown and not the end products themselves:

> Organic agriculture is an 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, or enhance ecological harmony. The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people.

The USDA Organic 101 blog (2012) takes the definition a step further and states that for crop produce or products to qualify as organic, and receive a certified organic label, they must be:

- Free from genetic modification;
- Grown without conventional fertilizers and pesticides; and
- Processed without food additives or ionizing radiation.

In addition, it is imputed from organic standards that organic animals also be raised without the use of artificial hormones and antibiotics.

However, organic definitions are not always accurately portrayed by marketers or correctly perceived by consumers. While the government's organic seal was meant to highlight the different production methods of organic versus conventional systems; even prior to formal adoption of a U.S. government seal consumers interpreted the label in a different way. Extensive industry market and academic research showing consumer health and nutrition beliefs were being linked to the organic label prompted concern from consumer groups, grocery manufacturers and food processors to ask the USDA to add clarifying safety and nutrition language to USDA organic labels to avoid the risk that a U.S. government seal would reinforce unsupported consumer food safety concerns or be used by marketers to inappropriately exploit those fears (Burros, 2000).

In response, when formalizing the U.S. government imprimatur via the USDA organic seal, both the government and organic trade industry representatives sought to assure those concerned that the seal does not and should not convey food safety, quality or nutrition information or create such distinctions when compared with conventional, non-organic products. The USDA made clear the standards were not developed to establish a better product as it relates to safety, quality or nutrition, but instead were a way to improve domestic and foreign confidence in country's organic industry. Secretary of Agriculture Dan Glickman stated, "Let me be clear about one thing. The organic label is a marketing tool. It is not a statement about food safety. Nor is 'organic' a value judgment about nutrition or quality (WebMD, 2000)."

According to a report in Environmental Law and Policy Review, the USDA acknowledged concerns that organic could mislead consumers on health and food safety issues and predates assurances by Secretary Glickman. They note this apprehension being raised at a first meeting of the National Organic Standard Board (NOSB) by **Assistant Secretary of Agriculture Joann Smith who said that OFPA should not be considered a "food safety" law and "admonished the board to make sure it did not characterize organic food as safer than regular food, since there is no scientific proof to that effect"** (Hass, 2010).

> "LET ME BE CLEAR ABOUT ONE THING. *THE ORGANIC LABEL IS A MARKETING TOOL. IT IS NOT A STATEMENT ABOUT FOOD SAFETY. NOR IS 'ORGANIC' A VALUE JUDGMENT ABOUT NUTRITION OR QUALITY.*"
> — SECRETARY OF AGRICULTURE DAN GLICKMAN, DECEMBER 2000

Despite initial intentions and assurances, the **USDA's Agricultural Marketing Service (AMS)**, the government agency responsible for managing National Organic Standards (NOS) and USDA's Organic Seal, found in a 2005 consumer survey that consumer perceptions of foods carrying the USDA organic seal included beliefs that:

- It is healthier 65%
- It is safer 70%
- It is more nutritious 46%

The AMS-funded study concluded that these consumer perceptions linked to the USDA Organic Seal were facilitating sales growth, and that **familiarity with the seal but not the actual standards behind them was a dominant factor in determining if a consumer was likely to purchase organic foods**. AMS reported the USDA organic seal increased confidence in organic products (71%) and increased likelihood they would purchase organic foods (48%). This likelihood rose to 55% for survey respondents with children under 18. However, 79% of consumers familiar with the USDA organic seal were not familiar with the corresponding National Organic Standards behind it, and 90% believed USDA, not third parties, were responsible for certification. With these significant health, safety and nutrition misperceptions noted, **AMS concluded the USDA Organic Seal and marketing program was responsible for increased consumer trust in and willingness to pay more for organic products**. (Strochlic, 2005)

USDA's own research touting the key role in generating organic sales linked to health, nutrition and quality perceptions is supported in multiple academic and industry studies. Reviewing research into consumer perceptions and market drivers for organic purchasing, Michigan State University College of Law professor Brandon Lupp punctuates the important role the USDA Organic Seal plays, stating, "These [health and safety] preferences are clearly driving consumer purchase decisions in the grocery store, but the correlation be-

[7] *Those without funding and other ties to the organic and natural product industries. Further, no peer-reviewed research or independently published papers support marketing assertions that organic foods are generally safer, healthier or more nutritious than lower cost competing conventional counterparts.*

[8] *The Alar Scare cancer scare would later be exposed as an advocacy fundraising ploy and campaign to help increase sales of organic foods. (Rosen 1990, Cohen, et al 1999)*

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tween the establishment of national organic standards, increased consumer confidence in organic products, and the resulting increase in production and sales cannot be ignored."

Lupp further adds, that multiple studies show health and environmental claims frequently included on labels of products carrying the USDA organic seal are frequently false or misleading. He reports that the primary government agencies (Food & Drug Administration (FDA) and the Federal Trade Commission (FTC)) charged with protecting consumers with regard to food labeling and advertising claims (which include websites, in store displays and other promotional materials for food products which under the Federal Food, Drug, and Cosmetic Act are considered labeling and must follow the same high standards and guidelines) are "truthful and non-misleading in all particulars" go largely unenforced.

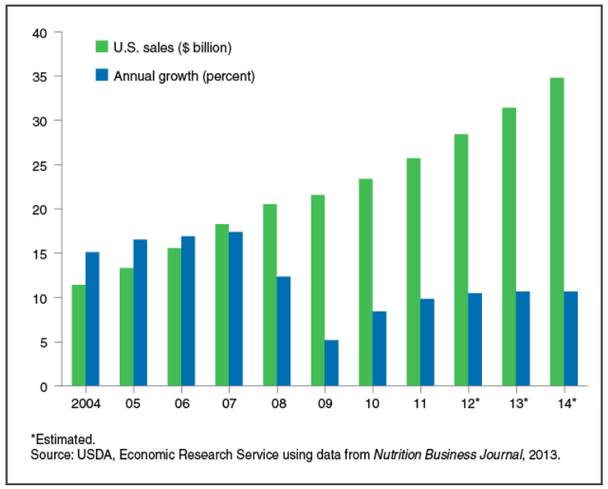
Lupp adds this lack of enforcement is surprising in the context that standards for enforcing these protections when it comes to food is intentionally low to protect consumers. Lupp notes that to bring corrective actions these agencies need only show "the likelihood of deception." Lupp's research evaluated FTC efforts as "ineffective," and FDA's enforcement as largely absent due to lack of resources and policies linked to health and "greenwashing claims on food products" (Lupp, 2009). This was essentially deferring responsibility to examine organic claims to USDA which has no direct enforcement role in food marketing and labeling regarding safety, health or nutrition claim issues.

The food safety trope is found throughout industry and supportive advocacy public relations materials. The Organic Trade Association campaign "Organic It's Worth It" website lists "Personal Health" as the first listed reason to "trust organic" noting "All products bearing the organic label must comply with federal, state, FDA, and international food safety requirements[9]" and "When your health and the health of your family is on the line, remember: organic. It's worth it." (Organic Trade Association 2013c)

INDUSTRY GROWTH AND SUCCESS

The more formal USDA sanctioned definition of organic production standards, and the resulting USDA Organic seal, fueled noticeable growth in the organic and natural products industry. In 2012, sales of organic products, both food and non-food items, accounted for $31.5 billion in the United States, adding nearly $2.9 billion in new annual sales. During this same year, the industry saw double-digit growth for the first time since 2008, when the U.S. experienced a major economic recession (Organic Trade Association [OTA], 2013a).

Total growth of organic product sales is outpacing total growth in sales of conventional foods. Organic food sales increased 10.2 percent in 2012, while conventional food sales only grew by 3.7 percent. Today, organic food's share of the total food market has climbed to 4.3 percent (OTA, 2013). However, as a percentage of food grown, organic production remains at about 1 percent when compared with conventional production.



*Estimated.
Source: USDA, Economic Research Service using data from *Nutrition Business Journal*, 2013.

The Organic Trade Association's (OTA) U.S. Families' Beliefs & Attitudes Study (2013b) found that farm produced fruits and vegetable crops continues to be the leading category of organic purchases with 97 percent of organic buyers saying they had purchased organic fruits or vegetables in the past six months. Breads and grains, dairy and packaged foods were also frequently cited, all scoring above 85 percent. According to OTA (2013b), organic fruit and vegetable produce is the top category purchased among organic food users due to its availability and only moderately due to cost, as well as consumer concerns of chemicals and pesticides used on produce grown using conventional agricultural methods.

In addition, OTA finds that reported consumption of organic meat and poultry has increased 13 percent among organic food users from last year. **Specifically noting growing food safety concerns amongst organic buyers related to import uncertainties, antibiotics, hormones and chemical additives, the association believes this area will continue to grow** (OTA, 2013b).

According to the Natural Marketing Institute's (2008a) report, "Understanding the LOHAS Marketing," market research conducted for the organic and natural products industries consistently shows that food safety concerns linked to pesticides, hormones, antibiotics, and more recently GMOs, are the primary drivers influencing this consumer adoption and growth in the organic and natural products marketplace. Corresponding multi-billion dollar annual consumer marketing campaigns, public relations activities and investments in advocacy initiatives reveals the organic industry has taken heed of this market research and put significant resources behind leveraging consumer food safety concerns to grow the market share of organic and associated natural product offerings.

WHO'S BUYING ORGANIC

The success of the organic industry suggests that the consumer market segments for these products have significantly expanded since the start of the organic movement. While in the early days the organic buyer was an individual who sought a closer relationship to farming production methods, today the term 'organic' means different things to different people, creating a more diverse and expanded group of consumers who buy organic. According to an organic consumer market trends report published on behalf of industry leaders such as Organic Valley, Stonyfield Organic and Hain-Celestial Group, hormone, antibiotic and GMO absence claims marketed on organic labels are the key purchase drivers, noting "consumers are as concerned about what's not in their products as what is." (Herther 2011)

New York Times food writer Michael Pollan wrote in 2001, "Health seekers, who today represent about a quarter of the market, are less "extrinsic" -- that is, more interested in their own health than that of the planet." Adding, "The chief reason (they) will buy organic is for the perceived health benefits. This poses a certain marketing challenge, however, since it has always been easier to make the environmental case for organic food than the health case." (Pollan 2001)

In its report "The Many Faces of Organic," the Hartman Group (2008) classifies organic buyers into three categories: core, mid-level and periphery. The report defines core consumers as individuals who are highly engaged and passionate about organic products; thus they are the most frequent purchasers. The mid-level organic consumer is further segmented into the inner mid-level buyer who has a deeper, integrated approach to organics and thus more closely resembles consumers in the core. The outer mid-level consumer is closer to the periphery; and the periphery maintains only minimal, infrequent and less-intense involvement in the organic world. According to Hartman, 61 percent of the U.S. potential organic purchasing population is made up of the mid-level consumers, 24 percent are core consumers and 15 percent are periphery consumers.

Similar to the Hartman Group, the Natural Marketing Institute (2008b) further classifies consumers by level of interest in products promoting health an environmental safety. The five classes include LOHAS, or Lifestyle of Health and Sustainability (18%), NATURALITES (12%), DRIFTERS (26%) CONVENTIONALS (27%) and UNCONCERNEDS (17%):

> **LOHAS (Lifestyles of Health and Sustainability)**
> **NMI classifies LOHAS consumers as the heaviest purchasers of green products. They are environmental stewards dedicated to personal and planetary health. They are the early adopters and influencers in the organic industry, who are continually looking for "deeper green" products (Rogers, 2011).**
>
> **NATURALITES**
> **NATURALITES are the secondary target for many LOHAS products. This group of consumers makes most purchase decisions based on benefits to their personal health. While they are interested in protecting the environment - an interest mostly driven by personal health reasons - they are not as involved in planetary health. To support their healthy lifestyles, they are avid users of natural and organic consumer packaged products. NATURALITES attitudes toward the environment, society, and health aren't as strong as LOHAS but they are more engaged than other consumer segments (Natural Marketing Institute [NMI], 2008a, p. 13).**
>
> **DRIFTERS**
> **Motivated by the latest trends, DRIFTERS commitment to sustainability is constantly shifting. DRIFTERS tend to be less active in the environmental movement than the general population. However, they do tend to participate in certain LOHAS-related activities, such as corporate boycotting and recycling (NMI, 2008a, p. 13).**
>
> **CONVENTIONALS**
> **CONVENTIONALS sit on the fringe of the environmental movement with no plans to become further involved. They are well-educated, waste-conscious, practical and rational consumers motivated by frugality rather than environmental goals. CONVENTIONALs, like NATURALITES, are more personally centered (NMI, 2008b).**

[9]*Note: This is a not an organic certification element or distinction as all foods must comply with these food safety requirements.*

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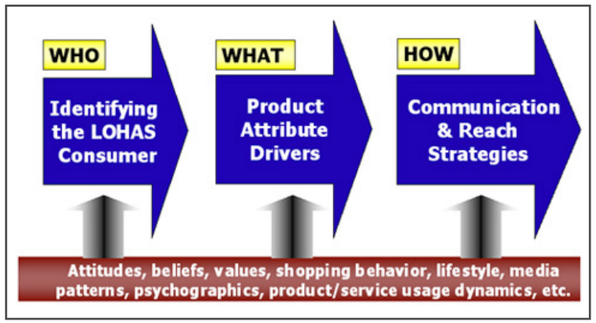
UNCONCERNEDS

UNCONCERNEDS don't possess much environmental responsibility unless they feel it imminently affects their livelihood. The number of UNCONCERNEDS has fallen in recent years, suggesting that eco-related messaging is perhaps beginning to penetrate this consumer segment (NMI, 2008b).

NMI presentations to the organic and natural product industry instructs marketers on using this information combined with attitudes, beliefs and psychographics to grow their market share beyond those "core" or "LOHAS" consumers influenced by environmental and socio-economic motivations (Rodriguez 2010):



NMI, Hartman and various other market research reports provide industry insights and guidance on motivating these different consumer segments via media and other outreach to purchase more or become new buyers of organic and natural products. This research and corresponding industry marketing activities is attributed to the dramatic increase in annual sales growth for this sector over the past 20 years.

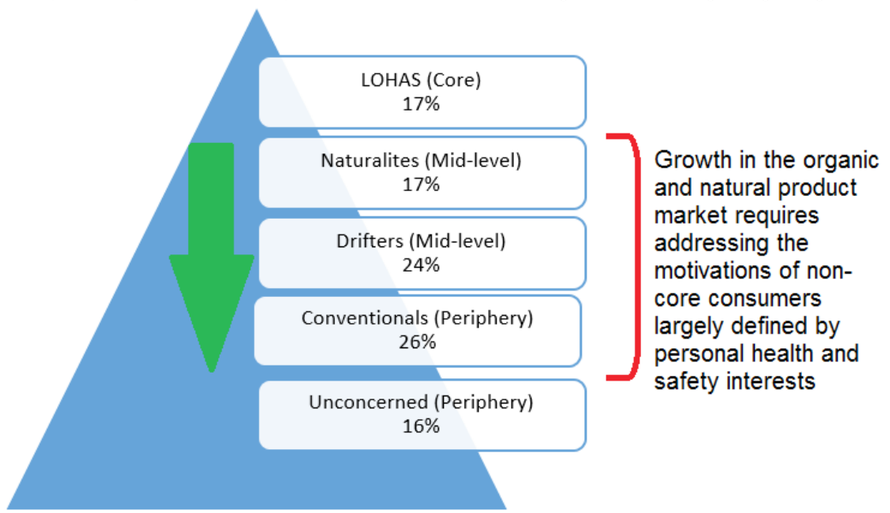
The net sales increase realized by expanding U.S. organic sales beyond the core LOHAS early adopters prior to the introduction of the USDA Organic Seal in 2000 to health and safety-motivated mid-level and periphery market segments now purchasing organic in 2014 is $186 billion.

TARGETING WITHIN MID-LEVEL SEGMENTATIONS

This research also shows the degree to which people purchase organic goods, or the extent to which a consumer falls into one of the Hartman Group or NMI organic consumer categories. It may be influenced by a person's gender or parental status. For example, Context Marketing (2009) found that women are somewhat more concerned than men when it comes to many food quality issues, especially issues concerning food safety. "However, concern about food safety increases with age for both men and women" (p. 8).

Hill and Lynchehaun (2002) note that families are often introduced to organic food with the arrival of a baby. "Parents take a huge interest in the food they buy for their family and increasingly many new parents are buying organic baby food. This is dramatically changing family eating habits" (p. 530).

Similarly, the Hartman Group (2013) found that parenthood is one of the most important triggers for using organic. "Our data continues to confirm a familiar story: When people have children, their thinking about food shifts dramatically as they transition from caring about oneself to caring about another growing being. Parents' thinking



Sales in US$ billions	USDA SEAL LAUNCHED December 2000														
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Annual organic sales	$8	$8	$9	$10	$12	$14	$17	$20	$24	$25	$27	$27	$29	$33	$35
Cumulative organic sales		$16	$24	$35	$47	$61	$78	$99	$122	$147	$174	$201	$230	$263	$298

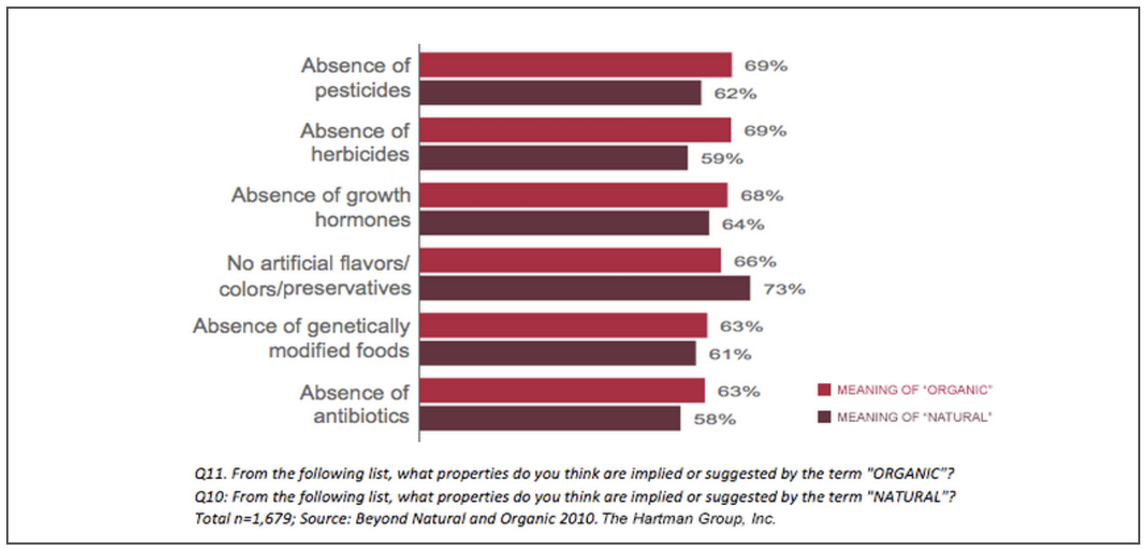
STONYFIELD YOBABY ADVERTISEMENT IN *PARENTING MAGAZINE* (2007) TARGETS NEW MOMS WITH MESSAGE *"MADE WITHOUT THE USE OF ANTIBIOTICS, HORMONES AND TOXIC PESTICIDES."*

about food continues to evolve as their children grow" (p. 10).

Hartman (2013) cited that entry to the organic market for some began while pregnant while others enter the category once their child has transitioned to baby food or dairy products.

Stonyfield Organic yogurt company CEO and GMO "Just Label It" campaign chairman Gary Hirshberg, whose company is noted for their organic baby and child dairy product lines, told participants at a November 2013 marketing conference hosted by the Yale Center for Consumer Insights, "The most effective storyline with today's food industry consumers is not whether a product is "sustainable" or "organic," but whether there are pesticides involved in any way…" (Learned, 2014)

WHY ARE SOME PEOPLE BUYING ORGANIC?



Q11. From the following list, what properties do you think are implied or suggested by the term "ORGANIC"?
Q10: From the following list, what properties do you think are implied or suggested by the term "NATURAL"?
Total n=1,679; Source: Beyond Natural and Organic 2010. The Hartman Group, Inc.

According to Harris Interactive (2008) 76 percent of U.S. adult consumers participated in the World of Organic by buying organic products at least occasionally. "Perhaps the greatest influence on this continuing trend is that the word "organic" has become synonymous with 'quality' and a 'healthier lifestyle'" (Demeritt, 2006). Professor Meike Janssen with the Agricultural and Food Marketing, Faculty of Organic Agricultural Sciences at the University of Kassel, confirms in research published in 2012, "Consumer perceptions of organic labeling schemes turned out to be of subjective nature and in many cases not based on objective knowledge." (Janssen, 2012)

The Hartman Group (2010), a market research organization that works with the organic industry and environmental advocacy groups, defined public perceptions of organic, "Consumers use the term 'organic' primarily to refer to farming practices and in its simplest form organic means food 'grown without pesticides'" (p. 8). Organic is also associated with absence of herbicides, synthetic fertilizers, hormones and antibiotics as well as genetically modified foods.

Hartman also found that the terms "natural" and "organic" while not the same, both overlap and are complementary in relation to consumer understanding. "Organic is understood as pertaining to what happens to food at origin (e.g., the farm, the plant, the animal)" (p. 6), while consumers see "natural" as describing what happens (or doesn't) to food *after* it leaves the origin, or the subsequent production and processing. **Hartman found consumers view organic products largely from the perspective of "absence" claims tied to health concerns versus other attributes.**

In 2010, the Natural Marketing Institute reported that across both purchase behavior and lifestyle behaviors, consumers are increasingly more engaged with the organic industry than in the past. "As individuals, they are choosing to switch to green products and to take more green actions. Different motivations prompt consumer action, such as health, community connectedness, and cost savings, but across all segments of the population participation is rising."

When researching food marketing trends in 2012, the Food Marketing Institute found that while shoppers may be spending fewer real dollars at the grocery store, and are more interested in value than ever before, their interest in health and wellness has rebounded tremendously, outpacing traditional product categories.

> For example, 78% of shoppers report interest in reading nutrition labels, paying more for organic products, or looking for locally sourced products…Over 40% of consumers feel that health and wellness products are 'worth spending a little more on' and organics sales have outpaced overall sales growth since September of 2009 (p. 25).

This Hartman Group (2008) report for organic and natural product industry marketers noted other key trends contributing to changes in organic consumers purchasing, including:

- **Increased debate** across government, industry and non-government organization over definition of "organic"
- **Intensified media interest**/coverage of organic
- **Growing concerns surrounding potential health hazards** linked to antibiotics and hormones in meat and dairy products
- **Access to** increasing number of natural/specialty food stores
- More **availability** of organic products, driving down costs
- Expansion of organic options within popular, **mainstream brands**
- Beliefs that organic foods taste better
- Regular **food recalls** (e.g., beef, spinach, etc.)

While multiple factors feed into consumer decisions to purchase organic goods, food safety concerns and health attributes are a repeating and overlapping theme found in a review of more than 100 consumer and market research reports published by academic and industry sources between 1990 and 2013. Acknowledged but largely ignored by government regulators these perceived attributes are driven by clear and frequent claims supported by organic marketers repeated with such frequency they have become firmly held beliefs by a majority of consumers.

The Organic Consumer Association (OCA) which lists among it's funder and campaign "partners" such major organic retailers as United Natural Foods, Organic Valley, Nature's Path and Amy's Kitchen, claims in both promotional materials and testimony submitted to USDA's NOSB, "Not only is organic safer, healthier and more nutritious." OCA pushes even further, asserting buying organic will "reduce food-borne illnesses and diet-related diseases." (Organic Consumers, 2008). OCA organic industry funders and campaign partners then link to their advocacy health claims via their consumer oriented product websites and social media accounts reinforcing these false and misleading health, safety and nutritional attributes.

ORGANIC PURCHASING MOTIVATION – FOOD SAFETY

The majority of studies find "health" to be the primary reason driving consumers to buy organic foods (Chinnici et al., 2002; Huang, 1996; Hutchins & Greenhalgh, 1997; Schifferstein & Ophuis, 1998; Tregear et al., 1994; Zanoli & Naspetti, 2002). For example, Ahmad (2010) shows that intent to purchase goes up when consumers believe organic food is safer than conventional food.

When looking at 'Whole Foods' shoppers, the Hartman Group (2002), along with others in the industry, found that consumers claim they buy organic foods because of their superior taste, the environmental benefits of organic production systems, nutritional value and health concerns (Whole Foods Market, 2004). These findings are in line with those published by Harris Interactive (2007), which found that those who buy organic see the food as safer and healthier.

These beliefs are shared globally. For example, when looking at the Irish consumer's preference for organic meat, O'Donovan & McCarthy (2002) found that organic meat purchasers placed more importance on food safety and health and believed that organic meat to be superior in terms of quality, safety, labeling, production methods, and value.

Food safety is also the main reason why new parents make the shift from conventional to organic food purchases. The Hartman Group (2013) surveyed consumers to identify the key motivations for buying organic foods and beverages. The resulting report, "The Organic and Natural Consumer, Traits and Trends," found three key triggers that compel consumers to first purchase organics: 1) pregnancy/parenting, 2) health conditions, and 3) social influence.

According to Hartman (2013),

> Most **parents are motivated to purchase organic products for their children by a sense of responsibility and fear**. Many are primarily concerned with perceived negative health effects of growth hormones and antibiotics in meat and dairy product categories and pesticides in fresh produce and grain categories… Purchasing organics makes parents feel like they are being proactive in protecting their children and acting responsibly (p.10).

A study that examined consumer choice in apples found the presence of children under 18 in the household increased the likelihood a consumer would choose an organic apple," (Loureiro, McCluskey, & Mittelhammer, 2001).

The 'avoidance factor' is a common trend in the food safety component of organic purchases. Parents aren't the only ones who purchase organic foods for their absence of different food production elements (e.g., pesticides, genetically modified organisms, antibiotics, etc.). Hartman's (2013) survey found that while the triggers varied between the core, mid-level and periphery buyers, the most cited reasons to buy organic were: to avoid products that rely on pesticides or other chemicals; to avoid genetically modified products; to avoid products that rely on growth hormones; and to avoid products that rely on antibiotics.

In a Context Marketing (2009) study, shoppers cited food safety as their primary concern related to food quality. When asked to identify the most important issues, those directly involving food safety were ranked highest by the majority of respondents. "The claims consumers found most meaningful have to do with the things consumers do not want to see in their food such as mercury, pesticides, hormones and antibiotics" (p. 4). Furthermore, 30 percent of survey respondents said GMO-free is an important food quality claim.

Research has consistently shown that while most Americans say they are unfamiliar with GM foods, the majority indicate that they hold at least some negative perception. In a Rutgers study, fewer than half (45 percent) agreed that they thought it was safe to eat GM foods (with only 8 percent strongly agreeing GM food was safe to eat), 63 percent said they would be upset if they were served GM food in a restaurant without knowing it, and 54% said that they would be willing to pay more for food that was not genetically modified," (Hallman, W. K., Cuite, C. L. & Morin, X. K., 2013).

Correspondingly, a common and aggressively promoted source of these parental concerns can be traced to public relations campaigns, advocacy sponsorships, advertisements, marketing promotions and even food labels asserting health risks with conventional foods and agricultural practices by organic and natural products industry marketers. Organic industry leading companies, including Stonyfield, Organic Valley, Horizon, Eden Foods, Nature's Path, etc… are all found to have significant investments in branded and un-branded marketing and advocacy targeting parents and children with health claims linked to pesticides, hormones, antibiotics and GMOs. (Milloy, 2007) In 2003 the Hudson Institute's Center for Global Food Issues singled out market leader Stonyfield for having a "marketing operation linking Stonyfield products to child health issues" promoting "false and misleading" claims which included statements that pediatricians were recommending organic milk over conventional for children based on health risk concerns. (Hudson, 2003)

ORGANIC PURCHASING MOTIVATION – HEALTH

In September 2012 Stanford University School of Medicine researchers published what was described as the "most comprehensive meta-analysis to date of existing studies comparing organic and conventional foods" in the peer reviewed journal *Annals of Internal Medicine*. According to the Stanford study, "They did not find evidence that organic foods are more nutritious or carry fewer health risks than conventional alternatives." (Bravada, 2012) Similar findings were reported in the American Journal of Clinical Nutrition which concluded, "From a systematic review of the currently available published literature, evidence is lacking for nutrition-related health effects that result from the consumption of organically produced foodstuffs."(Dangour 2010) These findings correspond with U.S. Department of Agriculture positions and policies with regard to the use, meaning and promotion of the USDA Organic Seal in food labels and

Academics Review
Testing popular claims against peer-reviewd science

Academics Review
Testing popular claims against peer-reviewd science

marketing (University of Wisconsin, 2007) and to U.S. Food and Drug Administration production-related guidelines with regards to requirements that food labeling claims be truthful and non-misleading all particulars. (Food and Drug Administration, 2001)

A wide range of independent academic and organic industry sponsored consumer research reveals health concerns to be the primary motivating factor that moves consumers to spend more of their food budgets on organic products:

- Zanoli and Naspetti (2002) found health to be the most important motive in the purchase of organic foods with both regular and occasional organic consumers.
- Lea and Worsley (2005) found that organic produce is often considered healthier than non-organic alternatives, and individuals believe organic food has a higher vitamin and mineral content than conventional products
- Magnusson, et. al. (2003) found that respondents most strongly associated organic food purchases with human health benefits.
- Makatouni (2002) found through a series of Interviews of regular consumers of organic foods (RCOFs) the research showed that the most significant motive for choosing organic was the health factor.
- Harris Interactive (2007), through its Harris Poll, also found that the majority of the public believe that organic food is healthier (76 percent of survey participants).

These findings are further backed by other published research articles. In fact, dating back to the 1990s, studies have shown that the majority of consumers purchase organic products for health reasons (Chinnici et al, 2002; Hutchins & Greenhalgh, 1995; Padel & Foster, 2005; Squires et al., 2001). Hass notes, "USDA organic certification connotes food that is safer even though it may not be" (Hass, 2010)

Other reports find that positive attitudes toward organic food often result from the perception that it is healthier. Relative to conventional food, organic food is considered to be more nutritious, and produced in a natural way absent of chemical fertilizers (Ott, 1990; Pino, Peluso, & Guido, 2012; Squires et al., 2001; Wandel & Bugge, 1997; Wilkins & Hillers, 1994).

When reviewing academic research on consumer attitudes around organic and related industry market drivers, Hughner, McDonagh, Prothero, Shultz and Stanton (2007) found that when it comes to organic purchasing, the 'health paradox' is an important component. In other words, consumers are driven to buy organic food primarily based on perceived health benefits, which contradicts research finding no evidence that organic food is actually healthier (Williams, 2002).

Laurie Dermeritt with the organic industry market research firm Hartman Group admits, "Consumers mistakenly believe that organic-grown food provides more vitamins and minerals, while there is no scientific evidence that this is true" (WebMD, 2000).

As with safety risk claims linked to conventionally produced foods, health benefit claims for organic products are a frequently found component of leading organic marketers, organic marketing publications and other groups receiving financial support from the organic and natural products industries. As concluded by Lupp (2009) "These preferences are clearly driving consumer purchase decisions in the grocery store, but the correlation between the establishment of national organic standards, increased consumer confidence in organic products, and the resulting increase in production and sales cannot be ignored."

ORGANIC PURCHASING MOTIVATION – ORGANIC MARKETING

In addition to perceived conventional production related (pesticides, hormones, antibiotics or GMOs) health-linked risk avoidance, another key component attracting consumers to organic goods is the perception that organic products are healthier than ones produced through conventional methods. In 2001 R. Brooks Gekler was the marketing chief installed by General Mills to oversee organic lines like Small Planet Foods. While acknowledging organic was not a health claim, the General Mills organic division fell under the company's "health initiatives" group and Gekler told the New York Times, "At first I thought the inability to make hard-hitting health claims for organic was a hurdle. But the reality is, all you have to say is 'organic' -- you don't need to provide any more information." Adding, "These particular consumers -- who pay attention to the media, to food scares -- take their own health claims to the word."(Pollan 2001)

Through its own research initiatives, the organic industry has further confirmed the academic evidence that organic purchases are primarily driven by food safety and health reasons. For example, the Organic Trade Association's (2013) U.S. Families' Beliefs & Attitudes study found that the leading reason given by U.S. families for purchasing organic products is health. In the study, 47 percent of respondents said the primary reason they buy organic foods is they are healthier, while 30 percent do so to avoid pesticides and fertilizers, 29 percent purchase organics to avoid antibiotics and growth hormones and 22 percent to avoid genetically modified organisms.

Furthermore, a report published by Stonyfield Organic (2013a) found that for parents who buy organic products specifically for their children, they do so, "mainly to avoid the four categories [toxic pesticides, hormones, GMOs, and antibiotics] that are so worrisome to parents when it comes to children's' food" (p. 17).

The Natural Marketing Institute (NMI) has published several reports on consumer attitudes around organic and natural products. One of its studies found that among both key LOHAS segments and the general population, a majority of consumers agree that organic foods and beverages are safer than non-organics. Almost equal proportions among the three groups (general population, NATURALITES, LOHAS) believe that organic foods and drinks are safer for their health and the environment (NMI, 2008).

According to NMI's report, an area showing increased concern among the LOHAS segment is GMOs. "…Even while technological and farming advances allow for greater ability to manipulate crops, and proponents cite benefits such as decreased water and land use, consumers appear poised to respond negatively. This debate is likely to rage for years to come" (p. 138). NMI finds that 28 percent more people in 2007 believed it was important to buy GMO-free foods than in 2003 (NMI, 2008).

While LOHAS and NATURALITES share a concern for personal health, they diverge on the issue of GMOs. In reference to the report's survey data measuring the amount of concern consumers have for different food ingredients (trans fat, artificial flavors, GMOs) the study found,

> The biggest gap between LOHAS and NATURALITES is [the desire] for no GMOs. While three-quarters of the population still finds [the GMO-free quality] of interest in relation to other benefits shown, it has not generated the same level of concern among the total population as it has in other countries (NMI, 2008, p.140).

Also of strong importance to consumers is the absence of pesticides and whether the food is locally grown. [10]

> Notable is that this measure ranks higher than organically grown, perhaps because it is explicit and has more easily understood implications than the all-encompassing term 'organic.' Rather, these attributes communicate benefits of organic. Marketers should take heed of these observations in their marketing strategies (NMI, 2008, p. 139).

NMI notes that **growing the organic and natural market beyond limited core environmentally conscious consumers to larger mainstream segments requires focusing on personal health concerns to drive purchases of higher-priced organic products**. Revealing a connection beyond food, NMI states organic food purchasing adoption leads to growth in other "natural" product sectors ranging from natural medicines to green energy products. In its 2008 report, NMI notes on ways to move sales beyond core customers *(emphasis added)*:

> Similar proportions of organic food users and LOHAS believe organic foods and beverages are safer. Thus, **the safety message is a clear driver to the category for committed users and should be a focus of marketing messages… marketers may benefit from educating them (non-organic and LOHAS consumer segments) on the safety benefits, as this is a top-of-mind concern for them.** These data also reinforce the interconnectedness between personal health and planetary health, which offers marketers clear opportunities to broaden their communications to these targets and create messaging that is motivating to a variety of segments (p. 143).

NMI (2008) considers NATURALITE consumers an opportunistic audience for organic marketing. While NATURALITES often cite income challenges as a barrier to frequent natural products purchasing, research shows the consumer group is a good secondary target due to their concern on personal health, which may lead them to engage more actively in the natural/organic industry in the future.

Research reveals organic marketers to be heeding the advice of NMI. In a study commissioned by Environmental Leader LLC (2009), 80 percent of organic and natural product survey respondents (marketers) indicated they expected to increase the amount of money their firms spend on green marketing efforts in the future.

ORGANIC PURCHASING MOTIVATOR - LABELING

Labels are one method organic marketers use to send messages to consumers that their products are perceived to be safer and healthier. In fact, the Natural Marketing Institute (NMI) touts the influence of labels in consumer purchasing decisions.

The Natural Marketing Institute (2008) found that use of package labels to promote organic product claims are the most important influence for consumers when they purchase foods and beverages, which is likely the result of a label's high visibility at the time of the purchase decision. (p. 146).

The research suggested that, the word "organic" means many things to consumers. Even so, the power of an organic label can be very strong. Studies (Chinnici et al, 2002; Hutchins & Greenhalgh, 1995; Padel & Foster, 2005; Squires et al., 2001) have shown that an organic label can lead a consumer to think that a food is healthier, through what is known as the 'health halo effect'.

Lee, Shimiu, Kniffin & Wansink, 2013 examined how far the bias

[10] *This stands in contrast to USDA national organic standards which acknowledge and allow for the use of a range of approved organic pesticides, and USDA Economic Research Service surveys which show 69 percent of U.S. food retailers import organic products from overseas, and that for some categories, such as coffee, tea and cocoa, more than 80 percent are imported from foreign markets. (ERS 2012)*

associated with the health halo effect goes. Their study found that an organic label can influence much more than health views: perceptions of taste, calories and value can be significantly altered when a food is labeled "organic.". Certain people also appear to be more susceptible to this 'health halo' effect than others.

The Hartman Group (2013) cautions marketers:

> When marketing organic products: be mindful that parents are interested in a wider range of labels and phrases than non-parents. **Parents spend more time reading labels and paying attention to callouts**. They also do more fact-checking than non-parents. With this in mind, be sure to include claims that resonate most with them (e.g., real, pesticide-free, natural)… (p. 11).

Organic marketing label "callout" example

As Khalameizer (2012) writes in "The Truths and Lies of Food Marketing,"

> We assume that organic will mean that food will not contain pesticides, chemicals, additives; we presume the term, organic, means that the food is one hundred percent organic and always healthy. The problem is that not all food that is labeled organic will necessarily be completely natural and free of any modern day preparation techniques (p. 2).

One survey conducted by International Communications Research of Media, PA on behalf of the National Center for Public Policy Research (2000), at the time the USDA seal was established, found two-thirds of the public would be misled by the proposed USDA seal on several key issues such as on health, safety and nutrition information. This information was subsequently shared with both USDA and FDA in public comment periods on establishing federal organic standards and labeling (Carlisle, 2000).

Without taking any corrective action, the USDA admitted that although they make no claims that organically produced food is safer or more nutritious than conventionally produced food, "Public perceptions of products with the organic label are generally that they are less harmful to human health and the environment than their unlabeled conventional counterparts."

At that time Katherine DiMatteo, executive director of the Organic Trade Association (OTA), agreed that an "organic label does not promise a necessarily safer product" while acquiescing, "although consumers often believe that it does" (Kaufman, 2000). OTA's agreement on health claims, however, has waned since 2000.

Among various initiatives since, in 2005 the Organic Trade Association engaged Free Range Studios and produced "Grocery Store Wars" - an animated video "outreach effort to educate consumers about the many benefits of organic products." Store Wars warned viewers that the "evil lord of the dark side of the farm, Darth Tater, was now more chemical than vegetable" while urging "when you visit the market you can keep your family and planet safe by choosing organic." (Free Range Studios 2005)

HEALTH AND SAFETY MESSAGES IN ORGANIC MARKETING

Some in the organic industry sector did not agree with DiMatteo's assurances on behalf the industry's trade group or the USDA official position on organic versus conventional safety and nutrition claims. Immediately following the launch of the USDA organic seal, the Organic Consumers Association (OCA) responded claiming:

> Of course organic food is safer and more nutritious than chemical-intensive and genetically engineered agriculture's 'industrial food…'It's a cop-out and an insult to America's organic consumers for Katherine DiMatteo of the OTA to say that organic is better for the environment but not necessarily for public health (Organic Consumers Association [OCA], 2000, para. 2).

These comments are not unique to OCA, which received funding and sponsorships from various organic marketing companies including OTA members, and they're not new. Major organic retailers and advocacy groups regularly speak to the superiority of organic products when it comes to health and safety. In 2001, Eden Organic Foods published an article on its website titled "Organic Food: Superior in Every Way," in which it wrote, "Evidence abounds that organic food is safer, more nutritious, better tasting, better for the environment, and better economically for growers and producers in comparison to commercially grown and produced food (Eden Foods, 2001, para. 1)."

Academics Review
Testing popular claims against peer-reviewd science

GMO SAFETY AND HEALTH CLAIMS

Often organic marketing messages on health and safety specifically target genetically modified organisms and pesticides; mainly promoting the absence of these production attributes in the products. In fact, most major organic brands voice their position on genetically modified organisms and pesticides directly on their website.

Industry leaders acknowledge the battle to require GMO labels will further support sales growth. The Organic Monitor market research firm told industry trade publication Food Navigator in January 2014 that the publicity around the GMO labeling push will propel organic market sales. (Schultz 2014) And, in a subsequent press release, Colle's a New York-based online marketer of organic and natural products, "agrees that the GMO labeling controversy will only strengthen the organic food market." (Colle Farmers Market 2014) With this in mind, it is not surprising that the organic and natural product industries have been the leading funding sources behind multiple state ballot measure and the national "Just Label It!" federal lobbying campaign for mandatory GMO labels.

Amy's Kitchen, an organic food company that produces easy-to-prepare meals made with organic ingredients, devotes a whole page of its website to its stance on GMOs:

> We're passionate about organic and non-GMO food. Since we became aware of the concern with GMO's, we've had a strict policy that requires our products not contain any GMO ingredients…There is a clear distinction between traditional breeding of crops and varieties (which we support) and the new technology of genetic engineering, which crosses species that could never be crossed in nature. **We don't use GMO ingredients because we, and many of our consumers, are uncertain of their safety** (Amy's Kitchen, n.d., para. 1).

Earth's Best, a subsidiary of Hain Celestial Group that produces organic baby food, also devotes a portion of its website to its position on GMOs, "Citizens and organizations across North America are waking up to the potential risks of GMOs and the desire to have food products free of GMO technology (Earth's Best, 2012, para. 1)."

United Natural Foods offers its official position on GMOs on its website:

> We believe that the cultivation of **genetically modified organisms (GMOs) and their inclusion in our food supply pose a serious threat to human and animal health** and to the environment and is therefore fundamentally contrary to our vision of a sustainable future (United Natural Foods, 2007, para. 2).

Organic Valley marketing materials suggest GMOs cause food allergens. Additionally, the company claims GM food cultivation creates a risk of cross-pollinations that threatens crop diversity and produces "super-weeds." Organic Valley's GMO position, featured on its website, argues many of the impacts of genetically modified crops are unknown. It writes, "We believe that questionable farming practices, such as the use of GMOs, should be prohibited until proven beyond any doubt to be safe for animals, the environment and people (Organic Valley, 2009a, para. 10)."

These GMO-related health and safety risk claims are prolific (see Appendix A for additional examples) and a frequently tied to organic industry marketing demands calling for mandatory GMO labelling and bans. The organic industry promoted precautionary message argues when the effects of technologies are unknown, the best approach is to air on the side of caution. Organic Valley isn't the only brand to use that theme in its position on GMOs. Silk, a Dean Foods brand, also claims that the risk of biotechnology is still unknown.

> Most GMOs are altered at the DNA level to be more tolerant of pesticides and herbicides, or to create their own pesticides, with the goal of generating more abundant crops. However, some farmers, environmentalists and many others believe genetic modification causes more harm than good. So while the jury is still technically out, we know what we believe—it's better to let nature take its course (Silk, 2013, para. 4).

Stonyfield Farms, owned by Group Danone, also exercises a tone of uncertainty when it talks about the safety of GMOs on its website:

> There's still a lot of work to be done to learn about the possible negative effects of GMOs on animal and human health. That's why so many of us are concerned about eating foods produced with GMOs, especially when we don't know if we are or not. **The two best ways to protect you and your family from GMOs in your food are to purchase organic today, and fight for GMO labeling for the future** (Stonyfield, 2013b, para. 5).

While Stonyfield Chairman Gary Hirshberg is less circumspect in media appearances in his role leading the industry-funded "Just Label It" and "Only Organic" lobbying campaigns. He wrote in an article for the Huffington Post:

> In short, no one can credibly claim whether they are or aren't safe from a long-term perspective. However, there are some bases for concern… **Because GMOs are not labeled in the U.S., they might be causing acute or chronic effects**, but scientists would have a very hard time recognizing the link-

Academics Review
Testing popular claims against peer-reviewd science

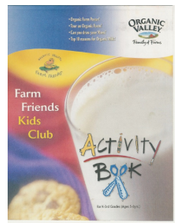
> ages between GE food intake and unexplained problems. Studying GE food-human health linkages without labeling is like searching for a needle in a haystack with gloves on… **When it comes to the safety of today's first-generation GE crops, we don't yet know, and we probably won't know their impact for a generation** (Hirshberg, 2013)."

Risk messages specifically pertaining to children's safety also heavily appear in organic brands' marketing messages. As research shows, consumers often switch from conventional to organic purchasing when they become parents, so it's likely these messages are effective with families and new parents.

Earth Best's mission states, "At Earth's Best® we believe babies and toddlers should be fed from the pure ingredients that the earth has to offer which is why we offer high quality, organic foods that do not use genetically modified ingredients (Earth's Best, 2012, para. 6)."

Horizon Organic shares a report on its website by pediatrician Dr. Alan Greene, a paid consultant for Horizon. The report, "Organic and Our Kids," promotes the benefits of organic foods for children due their lack of pesticides and genetically modified ingredients.

> Choosing organic foods can benefit all of us, but I'm most excited about the benefits for children. One of the benefits of organic food is that it is grown without persistent pesticides. Exposure to some of these pesticides has been linked to developmental and learning problems such as ADHD… Another advantage of choosing organic food is that it is grown without the use of genetic modification. When my 16-year-old was born, genetically modified organisms (GMOs) were not part of our food supply. Today, more than 30 percent of our cropland has been taken over by GMO crops. During the same time, food allergies have increased rapidly, and I'm concerned that GMO foods may be one of the reasons. GMO corn and soy are the dominant foods fed to most of the animals we use for conventional meat, milk, poultry, and eggs. They are what they eat (Green, 2011, para. 2, 3 & 6).



Stonyfield Farms also targets the perceived risks of pesticides to infants and children. Liza Dube (2013), Stonyfield Farm's Consumer Communications Specialist writes on the company blog, "After our oldest son was born and began eating solid foods, we made the choice to feed him as much organic food as we could, and while we didn't know all of the reasons to choose organic, we only needed one-pesticides (para. 1)."

Organic Valley takes risk-based marketing to children even further with both branded and un-branded campaigns including a branded "Farm Friends Kids Club" with promotional materials distributed to school children grades K-3 (ages 5-8). These promotional materials included a coloring and activities book for children and resources for parents to help organize campaigns to get organic-only milk and foods served in schools.

Organic Valley's "activity book" informs children:

> Wow, mothers sure are good at loving their babies! If mom's knew how good organic milk is they'd know it was the best milk to give kids when they're done nursing.

Adding under their "top facts" about Organic Valley organic milk:

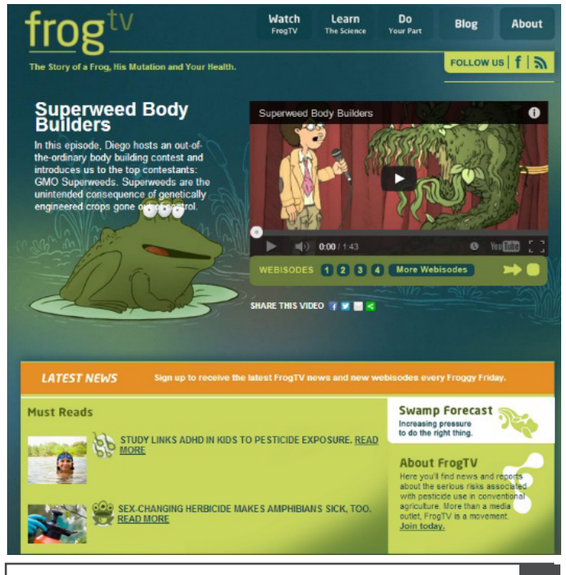
> It's Healthy!... It's pure milk, made without hormones, antibiotics or pesticides!

Organic Valley's accompanying "Concerned Parent Organic Toolkit" includes organizing and lobbying tips and resources to inform other parents and school policy makers on "why organic milk is important, how it's different from conventionally produced milk, how to approach education and foodservice professionals…" Adding, "Our children's health is our most vital and precious resource for the future. Many schools are successfully replacing poor nutritional choices with healthy ones, and yours can too – all the way to organic."

Like Horizon, Organic Valley enlisted Dr. Alan Greene, to include a letter in the accompany parent tool kit lobbying for organic milk and foods be served in local schools. Green cites concerns about rising health risks including: high blood pressure, type 2 diabetes, depression and cancer in support of Organic Valley's campaign for concerned parents to choose organic foods at home and to get schools to purchase them as well noting:

> As research continues to reveal the risks related to pesticides and other pollutants resulting from industrialized food production, the healthiest food choices become increasingly obvious. I recently visited an organic dairy with my family. It was wonderful. Your actions can help sustain this gentle way of producing food. They buying power of one school district, and then another school district, and yet another, helps ensure our access to safe foods in the future by sustaining family farms and healthy farming practices.

While many organic brands openly communicate an anti-pesticide/anti-GMO position when they amplify risk claims around food safety, some brands indirectly take a side on these issues through less transparent means. Again, Organic Valley provides an example of unbranded marketing via less-than-transparent advocacy tactics with their *Frog TV* campaign "The Story of a Frog, His Mutation and Your Health" launched in January 2011. Like the Farm Friends Kids Club, this initiative clearly targets children with a series of weekly online animated cartoon webisodes where Triball, a friendly frog mutated by exposures to pesticides and GMOs, provides commentary claiming a range of health risks attributed to GMO and pesticide-laden foods.



FROG TV UNBRANDED WEB CAMPAIGN BY ORGANIC VALLEY TARGETING CHILDREN INCLUDES VARIOUS HEALTH RISK ALLEGATIONS LINKED TO PESTICIDES AND GMOS

Nowhere on the Frog TV website, Facebook page or Twitter account is there any reference to Organic Valley's ownership or role in creating this content, and the campaign's website domain names are registered using a privacy protection service. However, an investigation by watchdog group JunkScience.com revealed that Organic Valley's online marketing director Greg Brikl had registered the site using an Organic Valley address and that it was being hosted on servers owned solely by Organic Valley. Further it was revealed that Organic Valley's marketing agency, Haberman Public Relations, was responsible for designing the campaign. Haberman also lists the Organic Trade Association and other organic companies as clients (Milloy, 2011).

Other organic and naturally marketed brands use third parties to promote anti-pesticide/anti-GMO views via their stance on GMO labeling - a third trend in organic marketing messages. Many brands support the Non-GMO project and promote their acquisition of Non-GMO certification. The Non-GMO project states:

> Most developed nations do not consider GMOs to be safe. In more than 60 countries around the world, including Australia, Japan, and all of the countries in the European Union, there are significant restrictions or outright bans on the production and sale of GMOs (Non-GMO Project, 2012)[11]

These labeling messages are not limited to food companies. For example, the organic herbal supplements company New Chapter (2010) says they have been "long committed" to avoiding GMOs and that 85 percent of their products have already been granted verified status by the Non-GMO Project. The company claims they are the first vitamin and supplement company to achieve this "extraordinary depth of verification" and writes, "We're proud to be the leading advocate of the non-GMO movement within the dietary supplement industry" (para. 3).

Natural health supplement marketer Taste for Life (2012) cites the Non-GMO Project in its position on GMOs. "Genetically modified organisms (GMOs) dominate certain sectors of US agriculture. The long-term health effects of eating such foods are not known.

PATAGONIA "KILLER POLLEN" AD, *BACKPACKER MAGAZINE,* FEBRUARY 2001.

The nonprofit Non-GMO Project states that GMOs pose risks 'to our health, our families, and our planet (para. 1).'"

Various organic and GMO-free clothing, bed and bath linen lines

[11] *The Non-GMO Project claims fail to accurately state that Australia, Japan and all of the countries of the European Union have approved GMO products on the market today as safe and allow their importation from countries where they are grown and use as ingredients in locally sold foods.*

Academics Review
Testing popular claims against peer-reviewd science

from such companies as Iron Heart, Pure Blue, Nudie Jeans Patagonia and even Levi's organic line are similarly promoted as GMO-free. In a 2002 speech to the Harvard Business School Patagonia clothing CEO Michael Crook touted Patagonia's "Killer Pollen" campaign as part of the company's business strategy for the 21st Century. (Lazio, 2003) The campaign included in store displays and full page advertisements likening the risks of genetic engineering to Chernobyl claiming:

> Unintended consequences: DDT nearly wiping out pelicans, massive radiation leaks at Chernobyl, butterflies killed by genetically modified corn. The list of environmental damage caused by new technologies is long. With genetic engineering the list may grow much, much longer… (Byrne, 2003)

BLOGS AND SOCIAL MEDIA – SHARING GMO/PESTICIDE VIEWS IN AN INFORMAL SETTING

Many organizations share their concerns of pesticides and GMO crops through more informal channels, such as company blogs, Facebook pages and Twitter feeds. For example, on Oct. 26, 2011, Choice Organic Teas posted an entry in its blog questioning the credibility of studies weighing the risks of genetically modified organisms:

> The studies done to approve these crops in the U.S. were conducted by the companies creating and profiting from this technology. Many countries around the world have either significantly restricted or banned the production and sale of GMOs, but the United States does not even require GMO containing foods to be labeled (para. 3).

Blog posts, while less official, are a great venue for more creative presentations of anti-pesticide and anti-GMO messages. A post in the blog for Multiple Organic, an organic ingredients wholesaler, one of the company's employees compares the introduction of genetically modified organisms into the food system to the reintroduction of dinosaurs in the film *Jurassic Park*:

> When you eat soybeans that have been genetically modified to resist Monsanto herbicides like Roundup™, how do we know what kind of effect this has on the human body over the course of many years? How do we know the genetic modification has not weakened the crop's resilience to the environment in some way? To circumvent years of evolution with this genetic process, so that we can spray crops with weed poisons, seems like a risky move on the part of humanity considering we rely so heavily on these types of crops for our survival. Unfortunately once a genetically modified organism is introduced to the world, it spreads, and this can never be undone. We've all seen *Jurassic Park*! Life finds a way (Hendricks, 2013, para. 1).

Some companies use their blogs to promote actionable advocacy against GMOs. A post in the Natural Grocers by Vitamin College blog urges readers to buy non-GMO products and share information on the negative impacts of GMO agriculture with friends and family.

> …we call on our customers to buy non-GMO products, especially organic versions…YOU are the single most important driver to stop the spread of genetically modified food. If YOU won't buy it, then THEY won't grow it… We encourage our customers to join in this movement. The very best thing to do is make sure your friends, families, and co-workers understand how GMO food has been forced upon them. Encourage them to see how cheap industrial food containing pesticide genes and herbicide-resistant genes have added nothing to our lives except profits for conglomerates (Natural Grocers, 2011, para. 4).

PRESS RELEASES AND MAINSTREAM MEDIA OUTREACH – ORGANIC MARKETERS TAKE MESSAGES OUTSIDE THEIR WEBSITES

Press releases and media interviews give marketing messages broader visibility, and when utilized effectively, can drive traffic to company's website. When organic marketers decide to center press release messages around the risks of conventional and biotech agriculture, it's because they believe those messages will drive readers to their brand.

In the final months of 2013 SeedsNow and NestFresh Eggs each issued a press release using GMO health concerns to promote their products. Seeds Now, in a November 2013 release, wrote:

> More than ever **individuals are becoming increasingly aware about the dangers of Genetically Modified Organisms (GMOs) and the affect they can have on the human body**...Grow your own NON-GMO Herbs, Fruits, & Veggies: It's even fresher and more cost-effective if an individual grows their own food using non-gmo seeds. Websites like http://www.SeedsNow.com offer a wide selection of 100% NON-GMO seeds. When an individual grows their own Organic produce they know exactly what their family is consuming (para. 1).

In a national press release distributed in December of 2013, NestFresh Eggs pointed out that GMOs are in as much as 80 percent of the conventionally processed food in the United States.

> A GMO is a plant or animal that has been genetically engineered with DNA from bacteria, viruses or other plants and animals. These experimental combinations of genes from different species do not occur naturally in the environment and, according to the nonprofit Non-GMO Project, **a growing body of evidence is connecting them to health problems**, environmental damage and violation of farmers' and consumers' rights (para. 2).

Recent state initiatives demanding GMO labeling have prompted several organic product brands to promote their position on the issue, whether they support the passage of bills or their own product labeling. A few prominent organic brands have used press releases to join the labeling conversation.

In the Spring of 2013, Whole Foods announced via press release its plans to label all products in its stores containing genetically modified ingredients by 2018. In its announcement, the company wrote:

> Today, we stood up for the consumer's right to know by announcing that all products in our US and Canadian stores containing genetically modified organisms (GMOs) must be clearly labeled within five years. We heard our customers loud and clear asking us for GMO labeling and we are responding where we have control: in our own stores (para. 3).

In 2013 Stonyfield Farms hired social media firm Bookieeboo, LLC to compensate social media commentators as part of their "Fight Pesticides" campaign. With offers of $1,500 honoraria and $1,000 sponsorships to attend conferences, their solicitation on behalf of Stonyfield noted:

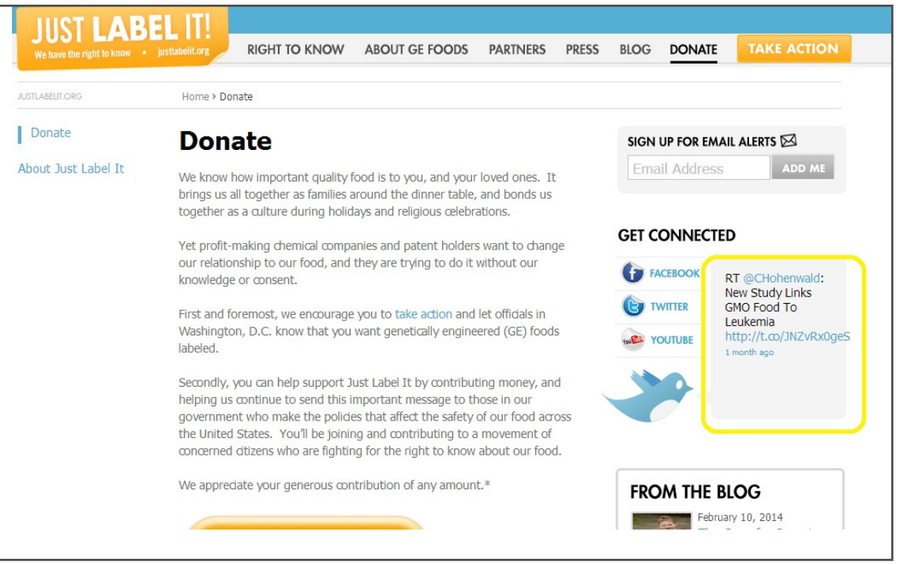
Stonyfield is hosting another Blogger Ambassador search and this time, we are looking for three bloggers to fight pesticides in their home, community and online. It's easier to fight pesticides than you might think. Small choices you make every day can help reduce your family's exposure to the kinds of pesticides that have been proven harmful – especially for our kids. On November 8th, Stonyfield will select three (3) bloggers to become official Ambassadors to support them in their efforts to FIGHT PESTICIDES by writing blog posts, tweeting, facebooking, instagramming and pinning… (Mamavation, 2013)

> The solicitation generated thousands of Twitter, Facebook, blog and other social media posts from hundreds of applicants attacking the safety of foods grown with pesticides and GMOs. The organic industry funded and led "Just Label It" campaign frequently promotes health risk claims linked to GMOs on their website and social media accounts.

MEDIA AMPLIFICATION OF ORGANIC MARKETING – THE VISIBILITY FACTOR

Marketers will increase the visibility of their messages by voicing

JUST LABEL IT SITE PROMOTES CLAIM "NEW STUDY LINKS GMO FOOD TO LEUKEMIA" PROVIDING A LINK TO AN ALTERNATIVE HEALTH NEWSLETTER PROMOTING A STUDY BY GILLES ERIC SERALINI WHICH HAD BEEN RETRACTED BY THE JOURNAL FOUR MONTHS PRIOR TO THE JUST LABEL IT PROMOTION.



Academics Review
Testing popular claims against peer-reviewd science

them through popular media outlets, which take a company's brand outside of its owned online content. When promoting their products in the media, organic marketers regularly compare their products to their conventional counterparts, and these comparisons often communicate concerns of risks related to the use of pesticides and genetically modified organisms. Mainstream media outlets ranging from the popular Dr. Oz Show to the New York Times frequently carry organic marketing messages with implied health risks about conventionally grown foods.

New York Times columnist Michael Pollan admitted to the existence of pro-organic media bias to attendees at an organic food and natural health conference in 2013 stating:

> The media has really been on our side for the most part. I know this from writing for the New York Times where I've written about a lot of other topics, but when I wrote about food I never had to give equal time to the other side. I could say whatever I thought and offer my own conclusions. Say you should buy grass feed beef and organic is better, and these editors in New York didn't realize there is anyone who disagrees with that point of view. So I felt like I got a free ride for a long time." (Robbins 2013)

In March of 2013, the *Washington Post* published the article, "The benefits of organic baby food; it's never too late to become a novelist." The article cited the main reason to purchase organic baby food was that it had more nutritional value. However, Shazi Visram, founder and CEO of Happy Family Inc. disagreed in a letter-to-the-editor responding to the piece. "Let's not belittle its many positive benefits to our health and our environment by citing studies or individuals who don't address the core benefits of what organic is all about: removing harmful chemicals, pesticides and toxins from our food (para. 3)," she wrote.

In an article published in October 2010 by the *Denver Post*, "Cooking organic-without the guilt trip," journalist Kristen Browning-Blas interviewed Earthbound Farms co-founder Myra Goodman about her new cookbook. When discussing Goodman's philosophy on farming, she said:

> Instinctively, we didn't want to touch the pesticides or other chemicals. We didn't want them on our food…We chose to farm organically because we were acutely aware that whatever we did in the field literally followed us into our home (Browning-Blas, 2010, para. 5).

In an interview with Organic Valley Co-Founder and CEO George Siemen published by *Reuters* in May of 2012, he shares how in recent years he shifted his focus to fighting genetically modified crops, which he believes is a threat to not only his industry, but to health and environment wellness (Gillam, 2012).

In October of 2013, Gary Hirshberg (CEO of Stonyfield Organic) participated in a GMO-focused article, "GMOs 101: Everything You Need to Know From an Industry Leader," published by The Chalkboard. Hirshberg told *Chalkboard* reporter Suzanne Hall:

> Industry developed GMO crops and introduced them to the market with the promise of higher crop yields, but the only things that have increased are the use of toxic herbicides and pesticides, the number of resistant weeds and bugs, contaminated crops and chemical industry profits…Scientific studies are beginning to show that exposure to pesticides can lead to health and behavioral problems, especially among infants and children. (Hall, 2013, para. 8).

With food safety generating a heavy amount of consumer interest, the media also regularly amplify the messages voiced by organic marketers. Media has also been reporting on the GMO labeling movement within the organic industry, which has opened a door for organic marketers seeking additional visibility for their brands. With a number of media outlets covering the state GMO labeling ballot initiatives, organic marketers can benefit from the high visibility of GMO labeling news coverage by taking an active role in the debate.

On March 27, 2012 the *Boston Globe* printed the article, "Group seeks labels on modified foods." Stonyfield's Gary Hirshberg is quoted, "I think `pink slime' and the controversy within the meat industry is the latest example of how people really want to know more about their food and want transparency," he said. "Getting more than 1 million people to support the petition shows there is a clear mandate for the labeling of genetically engineered foods (Abelson, 2012)."

In a March 2013 *New York Times* article Whole Foods president A.C. Gallo shared his views on GMO labeling. ''We've seen how our customers have responded to the products we do have labeled," he said. ''Some of our manufacturers say they've seen a 15 percent increase in sales of products they have labeled (Strom, 2013, para 2)."

In an interview with *Nutrition Business Journal* on organic marketing, when asked by journalist Marc Brush (2013) whether Nature's Path has faced a negative response to its anti-GMO stance, the company's VP of Marketing Darren Mahaffy said, "There certainly was when we started. Retailers would push back. They would say 'This label that says non-GMO? Get it off your packaging.' We ended up winning. Frankly, most of those customers have come around to see the value of the Non-GMO Project label (para. 24)."

Mahaffy also stated:

> There is no official definition for 'natural.' A company that claims its products are natural has a couple of very minor restrictions around additives and preservatives but beyond that, anything goes, whereas organic has many defined restrictions and requirements. The challenge is, of course, that the consumer doesn't see it that way. Our biggest opportunity is to help the consumer understand that only organic provides those benefits. The burden for that, to get that done, is both a company burden and an industry burden. If you hear a consistent message over and over again, from a variety of sources, it is more likely to be understood and valued (Brush, 2013, para. 22).

Brush (2013) asked Mahaffy, "Is fear a smart way to market against GMOs (para. 25)?"

He replied, "**I don't think you lead with fear as a brand in food, but you can, and perhaps should, lead with fear as an industry** (Brush, 2013, para. 26)."

BRAND – ADVOCACY COLLABORATION

As illustrated in this report, organic companies market their products by promoting alleged health benefits connected to the absence GMOs, hormones, antibiotics and pesticides juxtaposed to health risks they associate with less expensive competing conventionally produced products which may use these production tools. These messages are further promoted by advocacy groups that regularly amplify negative health risk allegations linked to conventional foods and the corresponding safety, healthfulness and ethics of organic production.

For example, organic industry consultant and researcher Charles Benbrook, PhD, publicly countered a widely publicized Stanford University study concluding that organic food was no healthier than conventional food. Benbrook produced his own research finding the consumption of organic foods reduces health risks by 94 percent. Benbrook framed the message around organic agriculture's lack of synthetic pesticide use (Benbrook, 2012a).

Benbrook, who was a lead scientist for The Organic Center organization (a formal research arm of the Organic Trade Association), is often criticized for being in the pocket of the organic industry and having a bias toward organic products (Summers & Entine, 2013).

This raises the questions: Who is driving the message? Who do consumers turn to when trying to educate themselves about organic food and products? According to a Natural Marketing Institute (NMI) (2008a) survey, 66 percent more of the general population in 2007 said advocacy groups were a source of influence in organic purchasing decisions. This has been growing over the past decade and the survey finds growth over time is particularly strong for third-party groups, specifically government agencies and consumer advocacy groups. "Consumers may perceive these as impartial, authoritative and trusted informants, and in an era of 'Greenwashing Washout', these are important voices."

Marketing messages can have a larger impact when consumers are greeted with them from multiple sources, particularly if those sources are perceived to be credible. NMI's research indicates, s consumer advocacy and environmental NGOs benefit from being perceived to be credible because consumers perceive a lack of financial gain from their beliefs and campaigns; though this is rarely the case.

ANTI-GMO, ANTI-PESTICIDE ADVOCACY FUNDING

Many industry groups financially support advocacy interests whose views both align with their financial interests, and have a favorable view of their products. In this case the major link is with groups who first and foremost disparage their competitors. The below noted sample reflects donations and campaign sponsorships to advocacy groups which regularly attack the safety of conventionally produced foods by organic companies with combined annual sales exceeding $30 billion.

Major organic companies regularly provide funding to the leading anti-GMO and pesticide protest groups for campaigns that fall in line with company goals and beliefs. For example, Stonyfield Organic regularly donates to anti-pesticide and anti-GMO groups through its "Bid with Your Lid" program. Stonyfield yogurt consumers vote for one of three groups each year to receive a portion of the $100,000 Stonyfield splits between the organizations. Beyond Pesticides was a recipient in 2004 and the Center for Biological Diversity was on the receiving end of the fundraiser in 2009 (Beyond Pesticides, 2004; Center for Biological Diversity, 2009). In a separate funding initiative in 2013, Stonyfield Farms agreed to match year-end contributions to Pesticide Action Network (PAN) up to $5,000 (J. Hatcher, e-mail communications, December 17, 2013).

Organic Valley, while an ongoing funder of PAN's children's health campaign, made the same agreement with the NGO the previous year (Pesticide Action Network, 2013; Hatcher, 2012). Organic Valley is another organization that regularly contributes financially to anti-GMO and anti-pesticide nonprofit advocacy groups. The coop

Sample anti-GMO/ Pesticide Advocacy Organizations	Sample organic industry company and trade association funders and campaign supporters
Beyond Pesticides (2012 budget $1.1 million)	Amy's Kitchen, Horizon Organic, Earthbound Farms, Stonyfield Organic, Choice Organic Teas, Whole Foods Market, United Natural Foods, Organic Valley , Vitamin Cottage Natural Foods, Annie's Homegrown, Rudi's Organic, Natures Path, Kamut International, Oregon Tilth, National Cooperative Grocers Association, Dr. Bronner's, Frey Organic Vineyards, Good Earth Natural Foods, Organic Foods International, Demeter Association, Lundberg Family Farms, Organic Seed Growers and Trade Association,
Center for Food Safety (2011 budget $2.9 million)	Horizon Organic, Earthbound Farms, Stonyfield Organic, Whole Foods Markets, United Natural Foods, Organic Valley, Amy's Kitchen, New Chapter Organics, Annie's Homegrown, Big Carrot Natural Foods, Lundberg Family Farms, Eatmore Sprouts & Greens, Organic Seed Growers and Trade Association
Cornucopia Institute (2012 budget $669,000)	Organic Valley, Frey Organic Vineyards, Demeter Association, Organic Seed Growers and Trade Association
Environmental Working Group (2011 budget $5.9 million)	Earthbound Farm, Stonyfield Organic, Whole Foods Market, Organic Valley, Applegate Organic, Lundberg Family Farms
Food & Water Watch (2011 budget $11.1 million)	Stonyfield Organic, Organic Valley, National Cooperative Grocers Association
Institute for Agriculture Trade Policy (2012 budget $3.9 million)	United Natural Foods, Organic Valley, Nature's Path Food, Dr. Bronner's, National Cooperative Growers Association, Good Earth Natural Foods, Organic Seed Growers and Trade Association, Nature's Path Food, Lundberg Family Farms, Organic Valley, Natural Grocer Company, New Hope Natural Media
Natural Resources Defense Council (2012 budget $104 million)	Earthbound Farms, Stonyfield Organic, Organic Valley
Non-GMO Project (2011 budget $455,000)	Stonyfield Organic, Whole Foods Market, United Natural Foods, White Wave Foods, Organic Valley, Nature's Path Food, Big Carrot Natural Foods, Dr. Bronner's, National Cooperative Grocers Association, Lundberg Family Farms, Natural Grocery Company, New Hope Natural Media
The Organic Center (2012 budget $728,000)	Organic Trade Association, Horizon Organic, Stonyfield Organic, Whole Foods Market, United Natural Foods, White Wave Foods, Organic Valley, Rudi's Organic, Annie' Homegrown, Nature's Path Food, Kamut International, Lundberg Family Farms
Organic Consumers Association (2011 budget $2 million)	Attune Foods, United Natural Foods, Organic Valley, Amy's Kitchen, Nature's Path Foods, Traditional Medicinals, Nature's Path Food, Dr. Bronner's, Demeter Association, Lundberg Family Farms, Stonyfield Organic
Pesticide Action Network (2011 budget $2.3 million)	Stonyfield Organic, Organic Valley
Sierra Club (2011 budget $97.8 million)	Stonyfield Organic, Whole Foods Market, Organic Valley, Frey Organic Vineyards
Just Label It (Organic Industry coalition formed in 2011 which has not yet reported expenditures)	Stonyfield Organic (founder), Horizon Organic, Attune Foods, Earthbound Farm, Silk Soymilk, United Natural Foods, Organic Valley, KeHe, Amy's Kitchen, New Chapter Organic, Frontier National Products, Rudi's Organic, Nature's Path, Annie's Homegrown, Wholesome Sweeteners, Pyure Brands, Kamut International, Mom's Organic, Dr. Bronner's, National Cooperative Grocers Association, Earth Source, Good Earth Natural Foods, Organic Foods International, Demeter Association, Lundberg Family Farms, Country Choice Organic, New Hope Natural Media, SunFood, Country Choice Organic
Rodale Institute (2011 budget $3.7 million	Earthbound Farms, Attune Foods, Stonyfield Organic, Whole Foods Market, United Natural Foods, Organic Valley, Amy's Kitchen, Frontier National Products, Rudi's Organic Nature's Path, Traditional Medicinals, Wholesome Sweeteners, Lundberg Family Farms

Academics Review
Testing popular claims against peer-reviewd science

runs the Farmers Advocating for Organic fund, which has issued grants to several anti-GMO, anti-pesticide advocacy organizations, including the Center for Food Safety (CFS), Environmental Working Group (EWG), the Organic Center, Xerces Society, the Rural Advancement Foundation International (RAFI, now ETC-Group), Cornucopia Institute, and the Northwest Coalition for Alternatives to Pesticides (Organic Valley, 2009b).

Organic Valley frequently appears in the EWG annual report as a contributor to its Action Fund (Environmental Working Group [EWG], 2009). EWG is the author of an annual "Shoppers Guide" and "Dirty Dozen" list, which lists the produce that has the highest amounts of pesticide residues. EWG is listed as a formal partner of the "Only Organic" campaign sponsored by Organic Valley, Stonyfield and other leading organic marketers.

Earthbound Farms is also a regular contributor to the EWG action fund. Its donations placed the company in the "Watchdogs" class of contributions ($10,000 - $24,999) in 2009 and "Muckrakers" donation class ($5,000 - $9,999) in 2010 (EWG, 2009; EWG, 2010). The same year Earthbound Farm also contributed to the funds of the Union of Concerned Scientists (UCS: Union of Concerned Scientists, 2011).

Whole Foods has multiple contributions to Farm Aid which campaigns against GMOs. In 2008, the supermarket raised $30,000 to support Farm Aid's work (Farm Aid, 2008) opposing conventional farming. In 2010, Whole Foods sponsored a Community Support Day at its Milwaukee location during which 5 percent of the store's total sales were set aside for Farm Aid which claims potential health risks with GMOs require mandatory labeling (Farm Aid, 2010). The organization's Edina, Minnesota location hosted a similar event in July 2013 to raise money for the Institute for Agriculture and Trade Policy's initiatives (Institute for Agriculture and Trade Policy, 2013). Whole Foods Encinitas donated proceeds from a 2012 event to the Non-GMO Project (Whole Foods Market, 2012).

Numerous organic brands are business members of the Rodale Institute. CEO Maria Rodale's regular columns published by Huffington Post frequently warn of alleged health risks of GMOs claiming buying organic or Non-GMO certified foods "improve our odds significantly" of avoiding risks of cancer, autism, Parkinson's and other ills. Amy's Kitchen, Frontier Natural Products Co-Op, Nature's Path, Annie's Homegrown, Kamut International, Rudi's Organic Bakery, Earthbound Farms, Eden Foods, Organic Valley, Stonyfield Farm and United Natural Foods International are all Rodale funding business members.

Many organic companies co- fund research conducted by the Organic Center. Stonyfield Farms joined Horizon Organic, WhiteWave Foods, Aurora Organic Dairy and Organic Valley in supporting two Organic Center studies, the reports titled, "A Dairy Farm's Footprint: Evaluating the Impacts of Conventional and Organic Farming Systems" and "A Deeper Shade of Green: Lessons from Grass-based Organic Dairy Farms," position organic dairy farming as more sustainable and healthy for the environment than conventional methods (Benbrook et al., 2010; Benbrook, 2012b).

Annie's Homegrown, Nature's Path, Kamut International and Rudi's Organic Bakery were financial contributors to the 2012 Organic Center studies, "A Closer Look at What's in Our Daily Bread" and "With the Grain: A closer look at the nutrient quality of grain, grain-based products, and the role of organic agriculture," (Smith, Benbrook & Davis, 2012a; Smith, Benbrook & Davis, 2012b).

GMO labeling is another issue uniting organic brands and advocacy groups. Just Label It, a non-profit organization that advocates for national GMO labeling, was founded by Stonyfield Farms founder, Gary Hirshberg. While the group has more than 600 partner organizations in the organic industry, the original funding for the group came from Amy's Kitchen, Annie's Homegrown, Aurora Organic Dairy, Bradmer Foods, Dr. Bronner's Magic Soaps, Honest Tea, Horizon Organic, Lundberg Family Farms, National Cooperative Grocery Association and Organic Valley (Just Label It, 2013).

A review of the top anti-GMO and anti-pesticide advocacy organizations in North America finds almost all have received donations, sponsorships or other promotional support from organic and natural product industry companies.

LITIGATION AND LOBBYING

Fundraising isn't the only type of collaboration taking place between organic companies and non-government organizations. Sometimes these groups partner together in other tactics including lawsuits. Dr. Bronner's worked with Organic Consumers Association, along with Nature's Path, Joseph Mercola, Center for Food Safety, Food Democracy Now and the Institute for Responsible Technology (IRT) to place the California labeling initiative on the November 2012 ballot (Cummins, 2011).

In 2011, Frey Vineyards joined the Organic Seed Growers and Trade Association, Cornucopia Institute and Beyond Pesticides in a lawsuit filed against Monsanto in the Southern District of New York seeking to preempt the company's from suing farmers for patent infringement when their crops are accidentally contaminated by Monsanto's genetically modified crops (Beyond Pesticides, 2011).[12]

Academics Review
Testing popular claims against peer-reviewd science

CAMPAIGN/COALITION PARTNERSHIPS

Coalitions opposing new biotech or pesticide products or calling for legislation of conventional or biotech agriculture often feature both organic companies and environmental groups.

In September 2013, Stonyfield Farms, Amy's Kitchen, Organic Valley, Annie's Inc., Eden Foods, Good Earth Natural Foods, Lundberg Family Farms, Nature's Path Foods, OTA, United Natural Foods, among other brands, joined Beyond Pesticides, Center for Food Safety, Center for Biological Diversity, Center for Environmental Health, Consumers Union, Cornucopia Institute, Earthjustice, EWG, Farm Aid, Food Democracy Now, Institute for Agriculture and Trade Policy (IATP), IRT, Just Label It, OCA and dozens of other advocacy groups in a letter to the Senate voicing their opposition to the Monsanto Protection Act (Alaska Trollers Association et al., 2013).

In October 2011, Amy's Kitchen, CFS, Annie's Homegrown, Beyond Pesticides, Center for Environmental Health, Consumer Reports, Organic Valley, EWG, Food & Water Watch, Horizon Organic, National Cooperative Grocers Association, National Organic Coalition, OTA, Organic Seed Alliance, Stonyfield Farms and ETC Group (formerly known as RAFI), among others, petitioned the FDA seeking mandatory labeling for genetically engineered foods (Center for Food Safety et al., 2011).

The list of coalitions is long. In April 2010, several organic brands and popular advocacy groups signed a letter urging the USDA to alter its position on GMOs before the May 2010 meeting of the Codex Committee on Food Labeling. Stonyfield, Nature's Path, PAN, CFS, Food Democracy Now, OTA, Non-GMO Project, OCA, UCS, United Natural Foods, Eden Foods, etc. argued the USDA should better distinguish foods containing GMOs with organic foods in its labeling position (Hansen et al., 2010).

Organic brand-advocacy also extends to other activities. For example, several environmental groups, CEOs (Organic Valley, Whole Foods, Annie's, The Honest Company) and celebrities signed a joint thank you letter to Kathleen Merrigan when she resigned as deputy secretary at the USDA (EWG, 2013) for her support of the organic marketing program. After leaving USDA Merrigan became a consultant for Organic Valley.

Other campaigns involve a more interactive partnership between organic companies and NGOs. In May 2012, the Rodale Institute partnered with Nature's Path to create a scholarship fund that helps cultivate the next generation of organic farmers (Rodale Institute, 2012a). The same year Rodale joined hands with Organic Valley in a program that helps dairy farmers convert to organic production systems (Rodale Institute, 2012b).

SHARED EMPLOYEES

It's not uncommon to see prominent employees of organic product companies affiliated with pro-organic NGOs. As previously noted, Stonyfield Farms founder Gary Hirshberg shifted his focus from his yogurt company to his non-profit, Just Label It.

In 2001, Paul Repetto of Horizon Organic Dairy sat on the Beyond Pesticides/National Coalition Against the Misuse of Pesticides (NCAMP) Board of Directors (Beyond Pesticides, 2001). Similarly, in November 2012, Melissa Hughes of CROPP Cooperative/Organic Valley joined the Environmental Working Group Board of Directors and New Chapter's Vice Chairman of the Board, Tom Newmark, is a 2012-2013 Greenpeace Board member (EWG, 2012; Greenpeace, 2012). Founded in 2004 with seed money from Organic Valley, the Cornucopia Institute is led by former Organic Valley public relations director Mark Kastel who continued to serve as consultant and spokesperson for the organization until 2008.

A number of high-ranking employees with organic companies serve on the board of trustees at the Organic Center (Organic Valley, 2012). These relationships between organic companies and environmental/advocacy NGOs creates a broad network of channels distributing pro-organic messages and corresponding disparagement of competing conventional practices that focus on alleged health risks. Claims questioning the safety of GM crops and pesticides that are shared by a nonprofit are then reinforced by an organic product maker and vice versa, thus increasing the visibility of the message and giving it a level of credibility that resonates with target audiences.

CONCLUSION

This review of more than 100 published academic and market research studies clearly shows that food safety and health concerns are the primary drivers of consumer organic purchasing. Further, research reveals that other factors, such as sustainability, environmental claims and even organic certification, do not motivate general consumers to purchase organic products in the absence of health risk claims. Research by USDA, the organic industry and independent academic organizations also confirms that the use of the USDA Organic Seal is critical to conveying confidence in organic labeling claims, which the majority of consumers mistakenly believe to mean healthier and safer food products.

This research is well known and shared throughout the organic marketing industry via trade shows, market research publication, trade and mainstream media publications. Organic industry CEO's, marketing directors and research consultants are quoted in sales presentations, financial analyst meetings and news interviews acknowledging consumer food scares and health risk concerns are key components to organic market growth. Some openly acknowledge that the industry should engage in fear-based marketing. Extensive, annually published trade and market research materials document the need to broaden organic sales growth to consumer segments for whom creating concerns about personal health and food safety are requirements to get them to switch from more affordable conventional to higher priced organic foods.

This research is translated into organic marketing campaigns that imply or directly assert food health and safety risks with foods produced using competing conventional practices. Our review of the top 50 organic food marketers finds these practices to be pervasive throughout the industry and not simply by a few bad actors. This disparagement marketing via absence claims with direct and implied health risk allegations is found on food packaging and labeling claims, in-store marketing displays, online campaigns, media relations, and extensive advertising in print, radio and television. Additionally, research reveals that anti-GMO and anti-pesticide advocacy groups promoting organic alternatives have combined annual budgets exceeding $2.5 billion annually and that organic industry funders are found among the major donors to these groups.

This review of published research, documented organic and natural produce industry practices and advocacy collaborations shows widespread, collaborative and pervasive industry marketing activities, both transparent and covert, disparaging competing conventional foods and agriculture practices. Further, these activities have contributed to false and misleading consumer health and safety perceptions influencing food purchase decisions. These findings suggest a widespread organic and natural products industry pattern of research-informed and intentionally-deceptive marketing and advocacy related practices that have generated hundreds of billions in revenues.

Finally, the findings strongly suggest that this multi-decade public disinformation campaign has been conducted with the implied use and approval of the U.S. government endorsed USDA Organic Seal in direct contradiction to U.S. government stated policy for use of said seal. USDA's own research confirms that food safety and health risk concerns associated with conventional foods combined with consumer trust and confidence in the USDA Organic Seal are responsible for the significant growth and corresponding profits enjoyed by the organic industry since the seal's launch in 2001. This use of the USDA Organic Seal to convey superior food nutrition, safety or quality attributes of organic over conventional foods contradicts both the stated USDA intention for the National Organic Standards Program and the extensive body of published academic research which show conventional foods to be as safe and nutritious as higher priced organic products.

As a result, the American taxpayer funded national organic program is playing an ongoing role in misleading consumers into spending billions of dollars in organic purchasing decisions based on false and misleading health, safety and quality claims. Further, U.S. government agencies, including the U.S. Food and Drug Administration, Federal Trade Commission and U.S. Department of Agriculture, which entrusted with the authority to enforce truthful, non-misleading consumer protections against such abuses have either ignored or become complicit in these marketing abuses.

These combined marketing and advocacy expenditures disparaging conventional food health and safety by organic food marketers can be estimated to be in the billions of dollars annually. However, it would be interesting to see what would happen if a corresponding product disparagement campaign by conventional food industry competitors was run. It is likely any similar types of disparagement marketing and use of false or misleading health claims to increase conventional sales would result in condemning media headlines and editorials, mass tort litigation and congressional hearings.

[12]In June 2013 Reuters reported that the U.S. Court of Appeals for the Federal Circuit affirmed a previous ruling that found organic growers had no reason to try to block Monsanto from suing them as the company had pledged it would not take them to court if biotech crops accidentally mix in with organics.
http://www.huffingtonpost.com/2013/06/10/monsanto-wins-lawsuit_n_3417081.html

APPENDIX A

Additional examples of organic company marketing claims linked to allegations of GMO-related health and safety risks:

Earthbound Farms writes,

> …we believe that **genetically modified food has not yet been proven safe**, and that it presents the possibility of long-term risks to the environment and to humans — yet there is no legislation that requires the labeling of genetically modified foods (Earthbound Farm, 2011, para. 3).

Woodstock, a subsidiary of United Natural Foods, adheres to similar stance:

> Twenty-five years ago, we began selling natural and organic foods with the belief that good food came from simple ingredients farmed from sources you could trust. **Genetically Modified Organisms (GMOs), because of their threat to human, animal, and environmental health**, pose a threat to Woodstock's core belief of keeping it simple and eating because it's good (Woodstock Foods, 2011, para. 1).

Organic and Non-GMO project certified Suja Juice headline on its Pinterest social media profile boasts:

> GMO's-just say NO! **GMOs (Genetically Modified Organisms) are extremely damaging to your health**. Here are some tips as to how you can avoid them and choose safer, healthier, organic options instead! (Suja 2013)

Field Day (a subsidiary of Blue Marble Brands) notes on their website that the governments in at least 30 countries do not trust the safety of genetically modified foods, and as such, maintain moratoriums on their production. Field Day's statement adds, "However, the United States and Canadian governments have approved GMO crops for commercial use based on safety studies conducted by the same companies who developed the organisms (Field Day, 2012, para. 2)."

In one of the product description pages on the Frontier Natural Products Coop, the organization voices its concern for the health impacts of genetically engineered crops, saying they are "risk to organic agriculture and may have other risks to long-term biodiversity and to human and animal health (Frontier, 2011, para. 3)."

Mediterranean Organic, a subsidiary of Blue Marble Brands, published a brochure on genetically modified organisms in which it amplified concerns that **GMOs may contain toxins that contribute to disease or cause allergies** (Mediterranean Organic, n.d.).

In relation to labeling legislation, organic and Non-GMO project certified Dr. Bronner's Magic Soaps was an active funder and supporter for the Yes on I-522 campaign, which promoted a bill to label GMO foods in Washington State. The company issued a press release in July 2013, four months before the 522 vote, critical of GMOs and announcing its creation of a new special agitprop label for its soap in support of the Washington state initiative. The release quotes Dr. Bronner's president, David Bronner, who said:

> Genetic engineering of food crops is a pesticide industry boondoggle. Rather than help farmers move to more sustainable, less chemical intensive agriculture, genetic engineering has resulted in huge increases in pesticide use and residues in our food. Americans need to wake up to the secret changes chemical companies are making to our food and demand transparency in food labeling. The goal of our special 'GMO Info' label is to educate the public on the importance of mandatory GMO labeling, and encourage everyone to educate, donate, volunteer, and become involved at both the state and national levels in the growing movement to label genetically engineered foods (para. 2).

During a presentation at the Guelph conference on organic food marketing, Maureen Fitzpatrick, a member of The Big Carrot, an organic food market co-operative based in Toronto, told attendees that a vast majority of organic aficionados would avoid organic foods if they knew they contained GMOs. Her remarks were published by the *National Post* in the article, "'We're farming in a polluted world': Even organic foods are not GMO-free, industry leaders say," on Feb. 13, 2013 (Gerson, 2013).

New media offer additional outlets for organic marketers to increase the visibility of their claims. An interview between a member of Natural Healthcare Canada and Nature Path's Organic Program Manager, Dag Falck, at the 32nd Guelph Organic Conference was posted on high-trafficked YouTube. In the video, Falck (2013) says, "Rat studies have been done to show the size of the organs change. Fertility is affected… We think it's not the kind of technology that should be in our food."

Walter Robb, co-president and COO of Whole Foods was quoted on March 13 by the *Washington Post* on the same topic. "The FDA has made their decision [that GMO crops are 'substantially equivalent' to traditional crops, but it obviously has not satisfied people, hence all the activism around this. There's a lot of concern out there about long-term effects on health and the environment (Dennis, 2013, para. 30)."

Academics Review
Testing popular claims against peer-reviewd science

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