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FOOD CHOICE AND THE OMNIVORE'S DILEMMA:  
AN INTERPRETATION OF U.S. PRIVATE-SECTOR FOOD LABELING

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## ABSTRACT

**This thesis analyzes the role of voluntary, private-sector food labels in verifying and promoting environmental stewardship in the U.S. food industry. A history of global, industrialized food production is presented, contextualizing the efforts of multiple alternative food movements to create and maintain distinct methods of food production. The United States Department of Agriculture’s National Organic Program is discussed as a model for a state-administered alternative food program developed and inspired by private actors and food activism worldwide. The effectiveness of USDA Organic is shown to vary over time and sector as the product of a complex, contentious, semi-democratic decision-making process involving multiple private, state, and semi-state stakeholders. Private food labeling services, as verifiers and promoters of alternative agriculture, occupy a full spectrum of quality ranging from excellent to ineffective. Label rating services such as the Ecolabel Index and Smarter Living Label Lookup represent recent efforts to authenticate meaningful labels and question less meaningful ones. Drawing upon insights from the fields of human-environmental geography, political ecology, rural sociology and environmental governance, this thesis analyzes the processes that go into the creation, promotion, verification, and continuation of private-sector food labels. It concludes by identifying predictors of success for food labels and discussing the role of an active public citizenry and state regulation in creating and improving food labels.**

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# Chapter 1

## Introduction

This thesis examines voluntary, private-sector food labeling in the United States and the potential of the state to democratically shape new food labeling policies and regulations. This thesis also reviews the multiple histories and processes that led to the need for food labels to certify different social, environmental, and economic claims about food production and distribution. Michael Pollan's influential treatise on food politics in a globalized food system, *The Omnivore's Dilemma*, serves as both a useful starting point and a foil. Sight, touch, smell, and taste no longer serve as reliable indicators of what a food is made of, where it came from, or what its nutritional value may be. There is a broad but clear trend of increasing geographical and mental disassociation of consumers from food production (Louv 2008; Pollan 2006). The average North American consumer of food negotiates a world of artificial colors, smells, and tastes, genetic modification both potentially benign and clearly not, and novella-length ingredient lists characterized by inscrutable nomenclature. Food quite obviously no longer speaks for itself (Pollan 2006). Instead, food is spoken for by an increasingly elaborate network of private, public, and nongovernmental entities, promoting a seemingly infinite and sometimes contradictory array of nutritional, environmental, and social claims, marketing strategies, and, more recently, third-party verifications of these claims (Guthman 2007a; Pollan 2006; Huffman 2004).

This thesis analyzes those food claims, marketing strategies, and verification mechanisms, as developed primarily in the U.S. private sector since the events of the Green Revolution approximately 40 years ago. Simultaneously, this thesis examines the rise of alternative food movements such as organic, USDA Organic (the distinction will become apparent), sustainable, and local, over approximately the same time period. These movements are framed broadly as responses to the Green Revolution, the rise of market-embedded industrialized agriculture, and the subsequent ascendance of transgenic and genetically-modified inputs and organisms (Brookfield 2001).

### **1.a. The Environment and the Market**

This thesis is heavily informed by perspectives from political ecology on the history and influence of economic neoliberalism in global agriculture, in environmental governance, U.S. food cultures, and in food politics. Particularly, this thesis draws from discussions within political ecology about the work and contemporary relevance of early-20<sup>th</sup>-century economic historian Karl Polanyi. Polanyi's influential book *The Great Transformation* (Polanyi 1944) informs questions that I seek to explore in this thesis: how do we theorize the current trends in the governance of global agriculture and the environmental ramifications of that governance? How do we contextualize voluntary, private-sector food labels as responses to these current trends? What is the role and potential role of these labels to ensure sustainable and/or beneficial environmental and social outcomes, or to at least slow global environmental degradation? How might food labels be calibrated, in function or governance, to better foster beneficial social and environmental outcomes?

Two related concepts from *The Great Transformation* stand out. First is the concept of fictitious commodities: land, labor, and money. Polanyi stressed the theoretical tension and empirical ills derived from treating these three things as commodities, when they clearly do not fit the definition. For instance, labor as a commodity is subject to the laws of supply and demand, but clearly human beings and livelihoods are not fungible goods or raw materials produced for exchange on the market, as a commodity is. Polanyi believed that subjecting the fictitious commodities to the dynamics of the market leads to increasing degradation of both the physical environment and social and economic conditions for the majority of a given society's population (Polanyi 1944). Continuing with the example of labor, it is not a stretch to say that job security and/or stability of livelihood is precious to most human beings. Major fluctuations in demand for this "commodity" wreak havoc on those subject to them.

The second concept, the cyclical "double movement," complements the first. Polanyi describes a world in which, prior to the 19<sup>th</sup> century, any notion of a market society was embedded within the state and civil society. That is, market dynamics were ancillary to the control and oversight exercised by the state and, to a lesser degree, by its general population. The trend in recent centuries has been to reverse this condition, that is, to increasingly embed social and state relations within market society and its dynamics. The market society is therefore a relatively novel concept, as is the market control of the substance of society (the fictitious commodities). This embeddedness is the first half of the double movement. As this trend progresses, so do the deleterious effects of commodifying the fictitious commodities. The theoretical endpoint of this movement would be the collapse of market society and the rest of society with it. Fortunately this

extreme is common neither in theory nor in practice. More common is the second half of the double movement: the bottom-up mobilization of significant numbers of members of the public against embeddedness. The general public, suffering the consequences of commodification, turns to the state for protection against these consequences and the power of the market is checked (Polanyi 1944).

O'Connor (1998) provides the theoretical bridge between Polanyi and more recent, more Marxian insights into environmental governance from political ecology. Whereas Polanyi focuses on fictitious commodities, O'Connor focuses on two inherent contradictions of sustainable capital accumulation. The first is that a capitalist economy depends on continuous economic growth and expansion to sustain itself. The feudal system that preceded capitalism in much of the world was capable of a sort of stasis; the capitalist system, in contrast, is either growing or shrinking. Over time producers of goods, in search of sustainable profit, will continue to streamline their operations by seeking higher outputs from fewer workers, inevitably worsening economic conditions for the working class. This in turn has the consequence of reducing consumer demand.

The second contradiction relates to the “conditions of production,” first defined by Marx and expanded upon by O'Connor. His definition of the conditions of production (O'Connor 1998) explicitly echoes Polanyi's fictitious commodities:

Conditions of production are things that are not produced as commodities in accordance with the laws of the market (law of value) but which are treated as if they are commodities; that is, they are 'fictitious commodities' with 'fictitious prices' (p.163)

These three conditions of production are labor, the natural environment, and urban infrastructure, redefined later by O'Connor as “space” to accommodate a wider

range of built environments. Employing the first contradiction, O'Connor argues that the continuous expansion described in the first contradiction and its ramifications – overproduction, squeezing of the working class, and so forth – will inevitably cause deterioration in the conditions of production defined in the second contradiction. Profit-seeking producers, seeking to keep prices as low as possible, consistently display aversion to bearing the costs of sustaining the conditions of production themselves. They instead turn to the state to accomplish this task. The state will typically be addressing simultaneous calls from civil society to ameliorate the consequences of the deterioration of the conditions of production. O'Connor sees the state as inevitably unable to negotiate between these pressures. Continued deterioration, in his view, will lead eventually to a national crisis (O'Connor 1998).

Political ecology has expanded greatly upon these initial works to contextualize recent developments in agribusiness and international environmental governance. The central explanatory concept is “neoliberalism,” as in “economic neoliberalism.” “Neoliberalism” as a term has come to embody a wide range of definitions and contexts, though it is typically used with negative connotations (see Thorsen and Lie 2006 for a general review, Castree 2010a and Castree 2010b for a review within political ecology). Quests for a precise definition and context abound, though McCarthy and Prudham (2004), following Peck and Tickell (2002), offer the caveat that “overly specific analyses of particular neo-liberal projects (‘neoliberalizations’ in their terms) may downplay neoliberalism as an extra-local project” (p.276).

Neoliberalism is generally defined as the combination of two flexibly interpreted ideologies. The first is economic liberalism, or the belief that the state should almost

never interfere in society where the private market offers its own (ostensibly more efficient) solutions. The second ideology is modern liberalism: an interest in poverty reduction, greater social equality and economic opportunity, environmental benevolence, and so forth. The ideologies meld to produce a philosophy wherein economic growth, unrestrained free markets and trade, and private solutions to social and environmental problems are seen as the ideal. Economic growth is the “rising tide that lifts all boats,” so to speak, which will ensure greater quality of life for all members of a society to one satisfactory degree or another.

In the environmental context, neoliberalism favors private and non-state modes of environmental governance over the state; regards all but the most essential regulations as costly, cumbersome, susceptible to corruption and fundamentally unable to keep pace with market trends; and heavily promotes the self-regulating market and price mechanisms as the most efficient and flexible protectors of the environment.

This ideology has manifested in a number of policies, broadly categorized into two phases of implementation: roll-back and roll-out (Peck and Tickell 2002). Roll-back neoliberalization occurred primarily under the Reagan and Thatcher administrations in the 1980s and is characterized by the systematic parsing, weakening, and removal of state authority and public expenditures (Guthman 2007a; Heynen and Robbins 2005; McCarthy and Prudham 2004). Roll-out, in some ways a response to the mixed successes of roll-back (particularly for environmental stewardship), involved (and continues to involve) the emergence of a constellation of semi-state and private entities providing social services from regulation to management of public space (Ibid).

One example of roll-back in the environmental context is the slashing of funding for public land acquisition in the 1980s; roll-out manifested as the subsequent rise of conservation easements as a land protection mechanism (McLaughlin 2005). Roll-back is also evinced in dramatic reductions in funding for public parks in North American cities over the past several decades. The roll-out response is the ever-more-popular public-private partnership, an arrangement that delegates management of a public park to a hybrid tax-exempt management entity typically run by local business leaders. Public-private partnerships frequently succeed in earning money off sales from corporate sponsorships, private events, and concession sales, therefore saving the parks in the absence of funding and keeping them open. This often happens, however, at the expense of the park as public space; spontaneous events are restricted, park hours may be limited and strictly enforced, park employees are systematically underpaid, and the built environment of a park may be calibrated to encourage only brief, consumptive activities (e.g. Arden 2010; Zukin 2010). Roll-out seldom results in the full restoration of public services lost during roll-back.

My brief history of industrial agriculture and subsequent chapters about the rise of alternative food movements and labeling are heavily informed by these concepts. As discussed in section 2.b., agriculture by its nature has been historically resistant to capitalist accumulation, consolidation, and control (Howard 2009a). Major developments in agro-technology and global environmental governance are changing that, while the practice of private-sector food-labeling illustrates the new complexity of this trend

## **Chapter 2**

### **A Brief History of Industrialized Agriculture**

The current state of global industrial agriculture can be traced by two overlapping historical narratives. The first is the Green Revolution, the global spread of modern high-yield seed varieties, the intensification of top-down, integrated scientific-research-and-government food production regimes, and the increased privatization of agricultural research and knowledge. The second narrative, more focused upon North America, is of consolidation in agribusiness and the decline of smallholder farmers, including in the U.S. context the American family farm. Together they paint a picture of an increasingly centralized agricultural world, in which global agribusinesses and institutions set policies for farmers across the world, and farmers across the world increasingly participate in international markets and trade. As discussed in further sections, the centralization, consolidation, and increased market embedding of agricultural activity has important implications for global agrobiodiversity, environmental degradation, and the growth of North American alternative food movements.

#### **2.a. The Green Revolution**

The Green Revolution is commonly defined as the accelerated development and worldwide dissemination of high-yielding modern seed varieties (MVS), developed primarily in Mexico and the Philippines and implemented globally. Although the pattern of distribution was worldwide, the general trend was one of seed varieties and agro-technology from the Global North spreading to the Global South. These new seed varieties and their uptick in use spectacularly increased crop yields worldwide and

prevented a widely anticipated global food crisis in the 1960s and 70s (Economist 2011a; Economist 2011b; Huffman 2004; Robbins 2004; Brookfield 2001).

The Green Revolution is framed as occurring primarily during the 1960s. However, major research into improving varieties of wheat and rice, the cereals most associated with the Green Revolution, go back until at least the 1940s, and farmers in the U.S. Corn Belt were experimenting intensively with maize in the 19<sup>th</sup> century (Brookfield 2001). State policies and institutions dictating the species, variety, and quantity of crops to be grown by particular farms in particular regions span back thousands of years, and have been especially prominent since the Colonial Era. Few colonial powers significantly rescinded their influence during the transition to independence (Brookfield 2001).

Though top-down agricultural research and policy were not ideas born of the Green Revolution, they were significantly expanded during the 1960s and 70s. Agricultural research centers in Mexico and the Philippines such as the Centro Internacional de Mejoramiento de Maíz y Trigo (CIMMYT) and International Rice Research Institute (IRRI) became distribution centers to the world for high-yield cereal varieties. Prescriptions for the proper growing of MVS became international and state policies. States across the world began to pair specific modern seed varieties with heavily subsidized fertilizers and pesticides, requiring recipients of food aid or beneficiaries of subsidies to follow corresponding prescribed growing techniques. This strongly incentivized those particular techniques of growing and to a significant degree homogenized growing techniques across the world. This furthermore related to the growing privatization and commercialization of agricultural knowledge. For thousands of years, agricultural knowledge was generally public and communal, exchanged from

farmer to farmer and region to region. The emergence of top-down research, the dominance of particular MVS, and heavy investment into private and nongovernmental agricultural research firms brought copyright into the system (Brookfield 2001).

New modes of modern agriculture coupled intensive fertilizer and pesticide use with intensified irrigation and water use, new agricultural machinery, and monocropping. MVS are frequently less sensitive to daylight length, enabling farmers to double and occasionally triple crop. While clearly increasing the crop yields at a given farm, this has reduced the popularity of intercropping and use of local seed varieties (LVS). Yield increases during the Green Revolution also resulted in only minor economic benefits for most producers in developing countries, the prices of many foods plummeted; instead consumers in those countries benefitted more, via those reduced prices (Huffman 2004). Yield increases varied by crop and region. Yields for rice and wheat improved the most, and general agricultural productivity improved most in Asia and Latin America, while only marginally increasing in most regions of Africa (Huffman 2004). Brookfield (2001) argues that the Green Revolution was most successful in regions that had been most subject to changes in agricultural production over the preceding century, i.e. where top-down governance was already in place. One major reason for this was (and still is) water: MVS typically require far more of it, at far more consistent rates, than the LVS that they replaced. A highly-developed irrigation system, such as that imposed upon India by Britain during the colonial era, goes a long way to ensuring the growing success of MVS (Ibid).

Global agricultural yields continued to increase at a rate that outpaced global population growth and food demand from 1961 until 2007. However, increases in yields

have now slowed significantly. For instance, global wheat yields increased around 3% a year from 1961-1990, but only by .5% from 1990 to 2007 (Economist 2011a). As

Fig.2.a.1 shows, the rate of increase in population growth is decreasing, but the rate of increase in yield growth is decreasing faster (Economist 2011a):

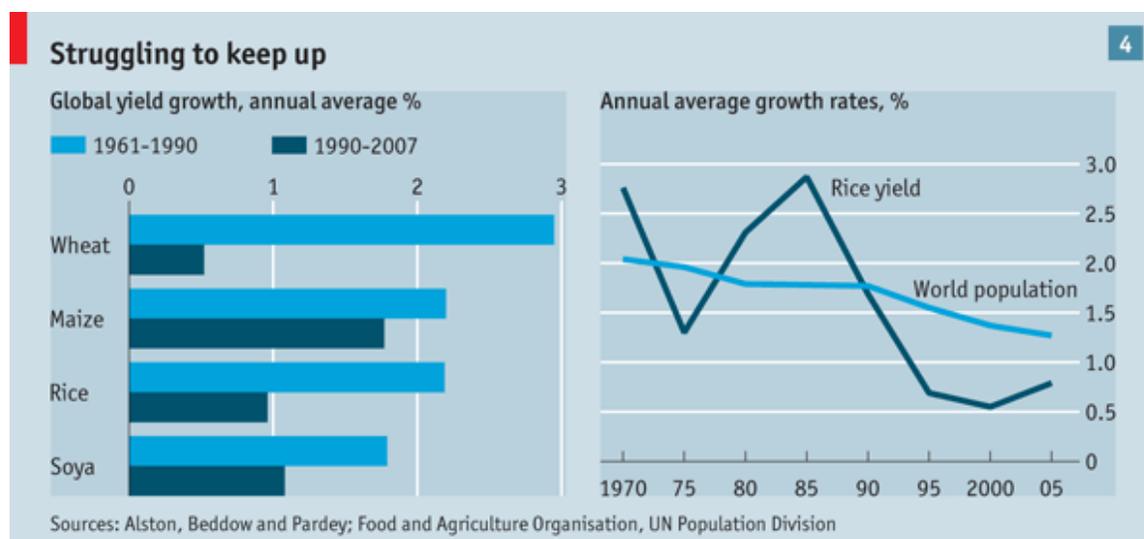


Fig. 2.a.1. Global Agricultural Yields by Crop, 1961-2009. Economist data derived from crop yield analysis based on United Nations Food and Agriculture Organization Statistics (Alston et al. 2010)

The Green Revolution has overseen a worldwide decline in LVS, significantly narrowing the genetic base from which many crops are drawn. A narrower genetic base results in a net overall increase in the vulnerability of MVS to pests and diseases (Brookfield 2001). Often monocroppers may compensate for this vulnerability simply by having access to higher levels of capital and resources. In this way social and economic circumstances enhance the resilience of monocropping operations. On the other hand, the resilience of integrated, diverse cropping schemes may be underrated due to the general tendency of these techniques to be practiced by relatively worse-off small farmers with reduced access to capital and resources (Zimmerer 2010).

There are also significant concerns about the effect of intensive modern agriculture on long-term soil nutrition and sustainability. Most soils require increasing inputs of fertilizers to maintain the same level of soil nutrition year after year. As pests increase in number and/or resistance to certain pesticides, the coping strategy becomes similar to that for fertilizer: spray more, with stronger and/or more intense doses. These large chemical inputs can have drastic and often unexpected consequences for soil organisms and salinity, untargeted insect, bird and plant species, and regional water quality and toxicity (Jaffee and Howard 2009; Rigby 2003; Brookfield 2001).

### **2.b. Consolidation in Agribusiness**

The consolidation of agricultural techniques and seed varieties correspond to consolidation in the industries that produce, process, and sell food. Howard (2009a: p.1267) frames the agricultural industry as “historically resistant to the involvement of large agglomerations of capital.” In the nineteenth and early twentieth centuries, agriculture was the primary land-use and economic activity in the United States (Cochrane 1993). Nineteenth-century land settlement policies such as the Homestead Acts, land grants for railroad companies, and the practice of paying military veterans in land encouraged widespread small-scale settling of land across the United States, although the U.S. South and California were always characterized by larger-scale landholdings (Miles and Brown 2003).

Technological advances stemming from and since the Green Revolution have overcome many barriers to capitalist accumulation and eliminated what remained of the U.S. family farm culture. The standardization of agricultural techniques and inputs improved the predictability of crop performance and yield, encouraging capitalization

where it once may have been seen as too risky. It similarly normalized markets for the sale of inputs: fertilizers, pesticides, seeds, machinery, and so forth (Howard 2009a).

Improvements in production also favor consolidation of agribusiness. Because economic demand for food is highly stable, an increase in supply (agricultural production) will lower food prices. This compels farmers to increase yields in order to maintain the same income. This has resulted in the U.S. in a “treadmill” (Howard 2009a) in which farmers attempt to ramp up production year after year, and often eventually lose income or change vocations. Those that remain in the business accumulate the land of departing farmers, and the treadmill continues.

In 1900, 40% of U.S. households lived on farmland. In 1990, that number had decreased to 1.9% (Louv 2008: p.18). Meanwhile, major agricultural and agrochemical companies have come to dominate virtually every sector of the food economy. A common estimate in economics is that an industry ceases to be competitive when the top 4 firms control greater than 40% of a market (Howard 2009a). Hendrickson and Hefferman (2007) estimate that 2 firms control 58% of the farm seed market, 3 firms control 71% of the soybean crushing market, 4 firms control 83.5% of the beef packing market, and 5 firms control 48% of the U.S. food retailing market. Monsanto Corporation dominates the genetically modified organism (GMO) seed market; providing seeds for 90% of total global acreage that uses GMO inputs. Howard (2009a) depicts the consolidation of the global seed industry from 1996 to 2008. The circles in Fig.2.b.1 (below) are proportional to that company’s share of the global seed market.

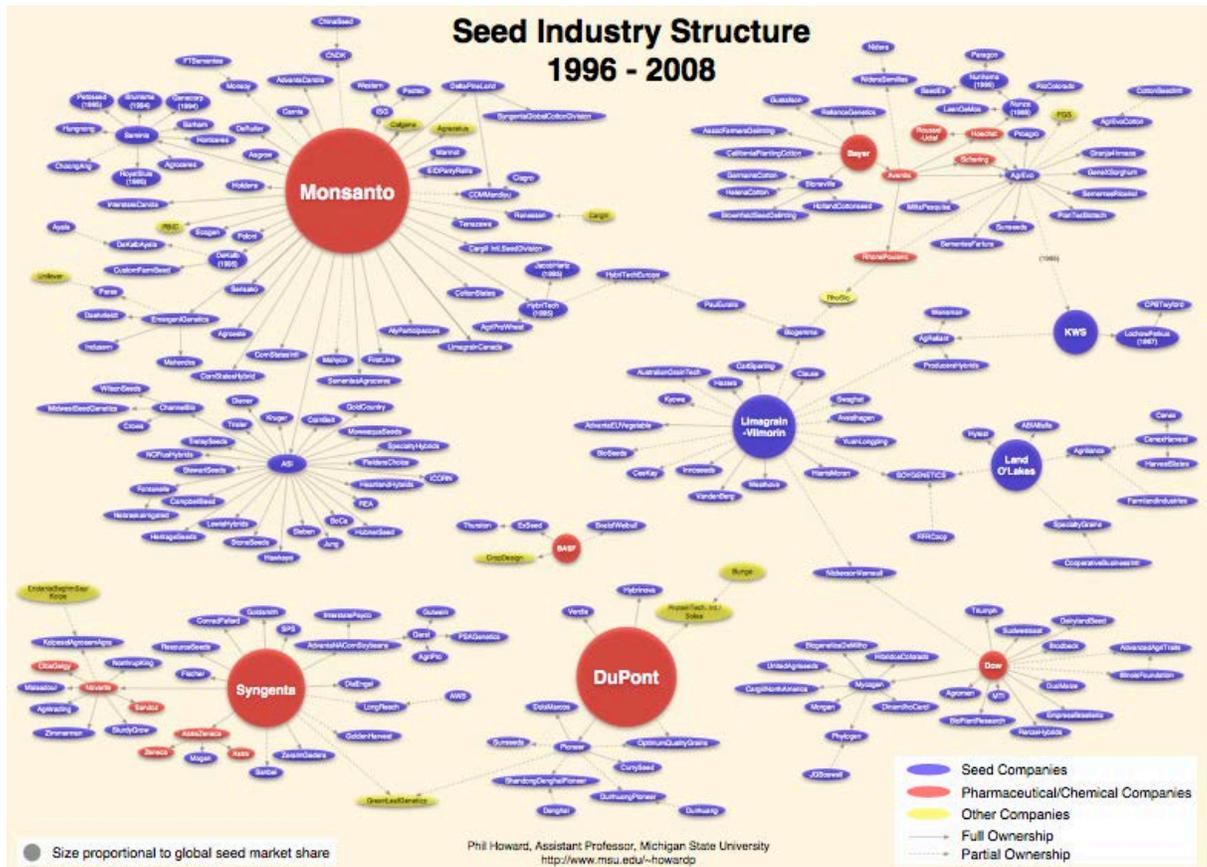


Fig.2.b.1. Global Seed Industry Structure, 1996-2008. (Howard 2009a)

## 2.c. Consolidation and Disassociation

Popular environmentalist writers such as Richard Louv (2008), Michael Pollan (2006) and Bill McKibben (2010) bemoan this loss of connection between the average American family and food production. Consolidated, industrialized food production, while offering an enormous array of food choice to consumer in the Global North, has created a widespread geographical and mental disassociation between the average American consumer and food production. Louv (2008) goes further, arguing that generations of Americans now in their 20s (or younger) have become detached from “true” exposure to nature, somewhat ambiguously defined by Louv as unstructured,

unsupervised activity in thanks to a combination of suburbanization, widespread environmental degradation, a culture of liability and civil lawsuits (that discourages unstructured outdoor activities), and the increasing complexity and popularity of an array of personal technologies (Ipods, cell phones, and so on). A lack of association with anything related to food production decreases interest and awareness of environmental and nutritional problems stemming from modern industrialized agriculture. The disassociation that Louv fears therefore may reduce citizen participation in environmental activism, and therefore reduce to the role of interested persons to improve the environmental conditions of agricultural production.

There is some empirical evidence for disassociation, or at least for the notion that younger Americans are less concerned about the environment than preceding ones. For instance, Wray-Lake et al (2010) discuss interest in environmental activities and volunteerism among high school seniors from 1975 to 2005. They monitor responses to questions about the importance of personal involvement in outdoor activities and conservation initiatives, the ability of society to cope with environmental changes over time, the ability of technology to mitigate environmental degradation, and more. They find slight declines over time in virtually all categories that indicated concern about the environment, and a steadily increasing faith in technology.

However, McDougle et al (2011) found increasing interest in environmental volunteerism among young North American undergraduates, particularly when there were perceived social benefits involved. They further cite U.S. Bureau of Labor Statistics indicating that as of 2010, U.S. citizens aged 20 to 24 were twice as likely as older cohorts to be interested in environmental activism. The worst potential

consequences of disassociation – that young Americans are entirely disengaged from environmental matters – would appear to be a bit overblown. It is more accurate to say that, as Curtis (2012) suggests, that concepts of environmentalism and participation in debates about environmental issues are changing, and younger Americans are simply not as fond of explicitly identifying themselves as environmental activists than those from previous generations, even if they engage in behaviors associated with activism.

### **2.c. History and Exaggerated Distinctions**

This thesis sets up a “then and now” scenario evoking social and environmental conditions of food production before and after major historical events such as the Green Revolution. This is a useful way to highlight the major points of multiple important histories whose true scope and detail outsize this thesis. It does raise the risk, however, of drawing exaggerated distinctions between what was and is, particularly from a deconstructionist point of view. Modern agribusiness is complex and highly politically contentious. So is the science and research surrounding it. Distinctions are not tidy between the “nature” and environmental concerns underlying agriculture itself, knowledge of nature and agriculture, and science and politics. This is an important point, yet as Brookfield (2001) stresses, it is not new. To use the oft-cited term coined by Latour (1993), we have never been modern.

The consequences of the geographical and mental disassociation between current generations of Americans, food production, and nature (broadly defined) are not yet clear. It is clear, however, that the rise of industrial agriculture has increased interest in multiple North American alternative food movements that champion various

combinations of social, ecological, and place-based values. These movements are now discussed at length.

## Chapter 3

### U.S. and USDA Organic: Genesis and Definitions

From the 1920s to 1980s, interest in the idea of crop management without synthetic agricultural inputs, particularly fertilizers and pesticides, continued to grow. Rudolf Steiner began developing biodynamic farming in the 1920s, a holistic, nature-centric, and sometimes spiritual approach to farming that strongly informed early developers of organic and persists to this day. A national shortage of nitrogen as fertilizer during World War II sparked J.I. Rodale's early interest in natural means of rebuilding soil fertility. He founded the Rodale Institute in 1947 to study "the link between healthy soil, healthy food and healthy people" (Rodale Institute 2012) near Kutztown, Pennsylvania. Organic pioneers began work in the 1940s in Switzerland and the United Kingdom (Darnhofer et al 2009). Brookfield (2001) makes the point that although precise credit is often hard to give, it is clear that many indigenous farmers who worked with scientists and researchers during the Green Revolution were practicing de facto organic farming techniques, some of which undoubtedly influenced the U.S. organic movement.

U.S. interest in organics increased greatly during the birth of the modern environmental movement in the 1960s, when landmark books such as Rachel Carson's *Silent Spring* (Carson 1962) raised widespread concern over the effects of pesticides like DDT on bird and animal populations. Milestones in environmental history like the bipartisan passage of the National Environmental Policy Act of 1970 and the widely-celebrated Earth Day of the same year indicated a tremendous rise in national

environmental consciousness and interest in corresponding issues (Pak 2011). Consumer interest in the “right to know” where and how their food was grown and processed galvanized many popular movements in search of alternatives to industrialized agriculture, and many of these movements had coalesced around some idea of organic by the 1970s (Jaffee and Howard 2009).

Earlier definitions of organic are commonly seen as broader and more ambitious in scope than the definitions that would ultimately inform the USDA standards, pushed for by a loosely affiliated network of progressive farmers and food activists (Guthman 2004). It was truly conceived as a means of transforming, or at least constructing a comprehensive alternative to, industrialized agriculture at virtually every stage, from the scale of production to the way that consumers would buy and think about their food. Major coalitions of farmers and agricultural researchers formed, such as the International Federation of Organic Agriculture Movements (1972, Germany) and California Certified Organic Farmers (1973, a major influence on USDA organic). From the 1970s to the 1990s, over 40 certifiers at state and regional levels across the U.S. offered interpretations of organic that sometimes differed, and standards that often differed (Jaffee and Howard 2009). This constellation of standards animated producers and policy makers to find a unified standard that might, among other things, streamline regulation and reduce certification costs for producers (Jaffee and Howard 2009).

In 1990 that U.S. Congress passed the Organic foods Production Act (OFPA) of 1990, setting the groundwork for the development of the USDA Organic Program. The standards were developed, discussed, and revised for more than a decade. Jaffee and Howard (2009) point out that the initial draft of the National Organic Standards under the

OFPA, released in December 1997, allowed for the use of “(1) irradiation, (2) sewage sludge and (3) genetically engineered organisms.” These Big Three caused a public outcry, resulting in 275,603 comments on the initial draft. Most of these comments expressed staunch opposition to the inclusion of the Big Three in the definition of organic. They were removed from the definition, although Jaffee and Howard (2009), following analysis by organic producer Eden Foods, speculate that this controversy was a deliberate distraction or negotiating tactic on the part of agribusiness interests. In particular, this controversy diverted attention from the question of the scope of USDA Organic: would the standards cover a specific issue, such as the prohibition of a list of inputs, or encompass more ambitious definitions of organic that defined themselves in opposition to industrialized agriculture? By the judgment of most, the standards represent the former (Dupuis and Gillon 2009; Jaffee and Howard 2009; Guthman 2004; Rigby 2003). Nonetheless, the dramatic (and in a narrow sense, certainly successful) popular response to the case of the Big Three makes for an early illustration of the insight from Dupuis and Gillon (2009; p.47) that “the creation of a legitimate, or credible, organic object requires an ongoing civic process in organic market governance.” The USDA Organic Program officially launched in 2001. USDA (2012) currently defines it as

...a labeling term that indicates that the food or other agricultural product has been produced through approved methods that integrate cultural, biological, and mechanical practices that foster cycling of resources, promote ecological balance, and conserve biodiversity. Synthetic fertilizers, sewage sludge, irradiation, and genetic engineering may not be used.

The conspicuous mention of the Big Three in the latter part of the definition is notable. Yet influential definitions, such as that of Lampkin (1994, quoted in Rigby 2003), cover more comprehensive ground:

...integrated, humane, environmentally and economically sustainable production systems, which maximize reliance on farm-derived renewable resources and the management of ecological and biological processes and interactions, so as to provide acceptable levels of crop, livestock, and human nutrition, protections from pests and disease, and an appropriate return to the human and other resources. (p.4)

The International Federation of Organic Agriculture Movements (IFOAM), with whom the United States is officially affiliated, goes even further in their definition, basing it upon their Four Principles of Health, Ecology, Fairness, and Care. In regards to Health, IFOAM (2009) states that

The role of organic agriculture, whether in farming, processing, distribution, or consumption, is to sustain and enhance the health of ecosystems and organisms from the smallest in the soil to human beings.

In another contrast, the principle of Fairness explicitly addresses the social aspects of food production:

...those involved in organic agriculture should conduct human relationships in a manner that ensures fairness at all levels and to all parties - farmers, workers, processors, distributors, traders and consumers. Organic agriculture should provide everyone involved with a good quality of life, and contribute to food sovereignty and reduction of poverty... Natural and environmental resources that are used for production and consumption should be managed in a way that is socially and ecologically just and should be held in trust for future generations. Fairness requires systems of production, distribution and trade that are open and equitable and account for real environmental and social costs. (IFOAM 2009)

Of course, the ideal for many early pioneers of organic is that USDA Organic will address these issues and help transform at least a part of U.S. agriculture. But the standards focus on a narrower issue: the prohibition of certain inputs (Jaffee and Howard 2009). Rigby (2003) makes the point that whether or not organic is deliberately intended to help smaller and family-owned farms as opposed to bigger and/or more centrally owned farms, there is nothing in the standards that requires or even incentivizes this. Indeed, certain controversial requirements may even reward agricultural enterprises large enough to use industrial methods of production, ship food longer distances, and acquire capital (Guthman 2004). For instance, a farm seeking organic status must eschew artificial fertilizers and pesticides for three certified years before that farm is formally classified as organic. In other words, a farm must essentially *be* organic for three years before it can formally label itself as such. During the interim, the farm must sell products at conventional prices while paying more or less organic prices on inputs and shouldering the additional costs of certification and potential increases in crop insurance fees. The larger that a farm business is the more able it is to acquire capital to endure this process (Jaffee and Howard 2009). As the U.S. organic movement has grown over the past 20 years, the question of who benefits, based on what definition, has become only more important.

### **3.a. Growth in U.S. Organics**

The U.S. Organic industry has seen enormous growth since the passage of the Organic Foods Production Act of 1990. At the time of the act's passage, the U.S. had less than a million acres of farmland cultivated under organic farming techniques (as certified by a constellation of farming institutions and standards). From the passage of the act until

the release of the USDA standards in 2001, the number of acres doubled to around two million. From 2002 to 2005, it doubled again. Sales of certified organic food items have ballooned over the past decade. Fig. 3.a.1 (Organic Trade Association 2011) illustrates the industry's growth in total \$ millions USD and as a percentage of total U.S. food sales.

<b>U.S. Organic Food vs. Total Food Sales, Growth and Penetration, 2000-2010</b>											
<b>Category</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Organic Food	6,100	7,360	8,635	10,381	12,002	14,223	17,221	20,410	23,607	24,803	26,708
Growth	21.0%	20.7%	17.3%	20.2%	15.6%	18.5%	21.1%	18.5%	15.7%	5.1%	7.7%
Total Food	498,380	521,830	530,612	535,406	544,141	566,791	598,136	628,219	659,012	669,556	673,324
Growth	5.0%	4.7%	1.7%	0.9%	1.6%	4.2%	5.5%	5.0%	4.9%	1.6%	0.6%
<b>Organic as % Total</b>	<b>1.2%</b>	<b>1.4%</b>	<b>1.6%</b>	<b>1.9%</b>	<b>2.2%</b>	<b>2.5%</b>	<b>2.9%</b>	<b>3.2%</b>	<b>3.6%</b>	<b>3.7%</b>	<b>4.0%</b>

*Source: Organic Trade Association's 2011 Organic Industry Survey conducted 12/22/2010 – 3/7/2011 (\$ mil consumer sales).*

Fig. 3.a.1. U.S. Organic Food vs. Total Food Sales, Growth and Penetration, 2000-2010. Figure taken from Organic Trade Association Market Analysis (Organic Trade Association 2011)

As seen above, the rate of increase in organic food sales has slowed since the global economic recession of 2008, but remains positive. Simultaneously, the sale of nonfood organic products has increased rapidly (Fig. 3.a.2, Organic Trade Association 2011):

<b>U.S. Organic Non-Food vs. Total Non-Food Sales, Growth and Penetration, 2003-2010</b>								
<b>Category</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Organic Non-Food	439	562	745	938	1,182	1,649	1,800	1,974
Growth	20.3%	28.0%	32.6%	25.9%	26.0%	39.5%	9.1%	9.7%
Total Non-Food	298,200	317,600	331,400	343,900	356,300	369,800	365,000	377,300
Growth		7%	4%	4%	4%	4%	-1%	3%
<b>Organic as % Total</b>	<b>0.1%</b>	<b>0.18%</b>	<b>0.22%</b>	<b>0.27%</b>	<b>0.33%</b>	<b>0.45%</b>	<b>0.5%</b>	<b>0.5%</b>

*Source: Organic Trade Association's 2011 Organic Industry Survey conducted 12/22/2010 – 3/7/2011 (\$ mil consumer sales).*

Fig. 3.a.2. U.S. Organic Non-Food vs. Total Non-Food Sales, Growth and Penetration, 2000-2010. Figure taken from Organic Trade Association Market Analysis (Organic Trade Association 2011)

### **3.b. Big Organic**

The massive growth of U.S. Organics has generated a considerable amount of discussion as to whether the USDA Program has stayed true to its original mission. As previously established, perspectives on the precise mission of USDA Organic vary, but no matter how it is defined, many question the success of the current program. Pollan (2006) famously dedicates an entire chapter of *The Omnivore's Dilemma* to “Big Organic,” asserting that the U.S. Organic industry has essentially undergone the same consolidation and concentration of production that occurred through the Green Revolution. That is, U.S. Organics are increasingly suffering from the same problems of concentration and accumulation that helped inspire alternative food movements in the first place. Pollan is correct to suspect this. Once more, Howard (2009b) illustrates major consolidation among organic brands (Fig. 3.b.1, following page):

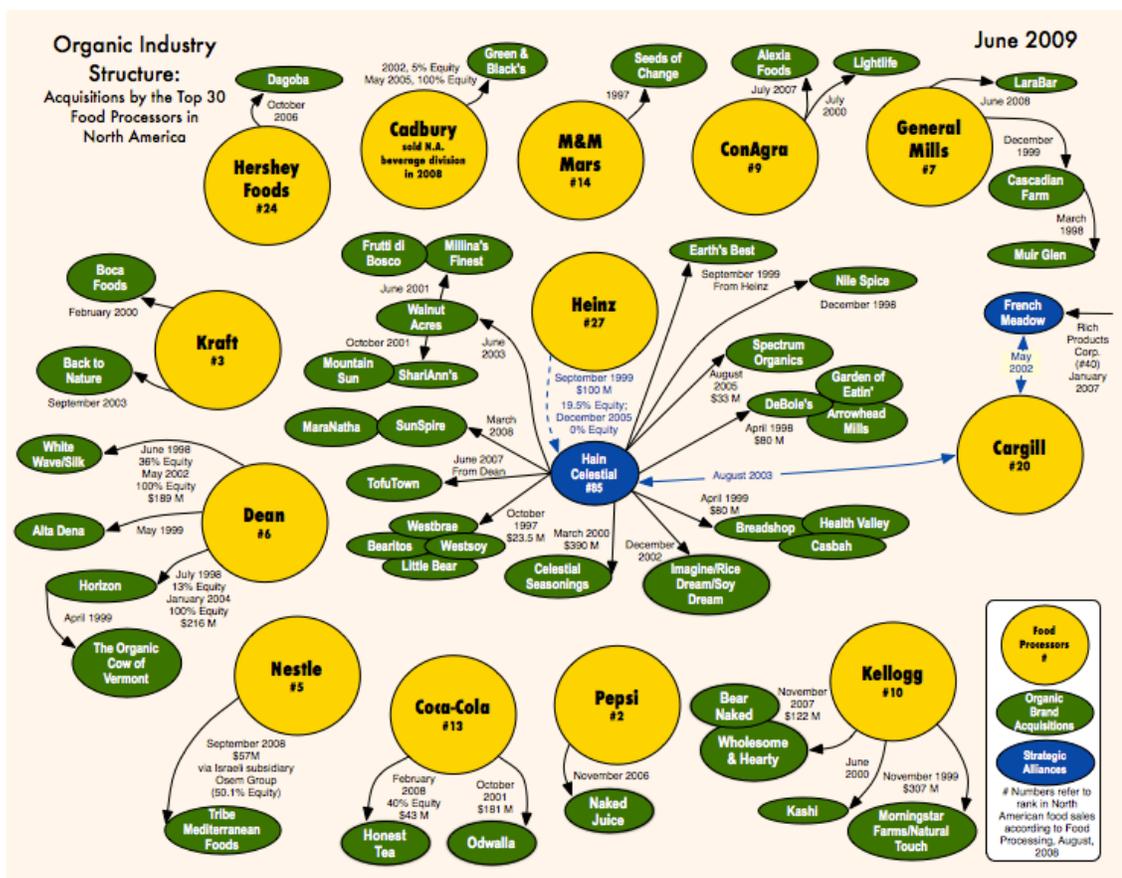


Fig. 3.b.1. Consolidation in the North American Organic Industry. (Howard 2009b)

Howard notes on his website a number of additional changes since this chart was made in 2009 (Howard 2012):

- (1) Coca-Cola fully acquiring Honest Tea in March, 2011;
- (2) Nestlé's acquisitions of Cadbury (and Green & Black's) in January, 2010, and Sweet Leaf Tea in May, 2011;
- (3) Sara Lee's acquisition of Aidell's Sausage for \$87 million in May, 2011; and
- (4) General Mills' acquisition of Food Should Taste Good in February, 2012.

Company names like Kellogg, Pepsi, and Coca-Cola may not come to mind when one sees Kashi, Naked Juice, or Honest Tea on the shelves, respectively. The massive growth of the organics sector was seen as a major business opportunity across the agribusiness sector, and 14 of the top 20 food processing firms in America now own at

least one organic brand or have developed an organic version of their own brand (Howard 2009). It is clear that the vision among some of small-scale, mixed-crop organic family farms has not come to fruition as a result of the USDA Organic Program. Rigby (2003) sees this as a natural result of the nature of standards meant to fit a range of contexts:

This orientation on specific inputs is hardly surprising since these schemes require producers to either be registered or not; there can be no grey areas, the produce is sold either with the organic symbol, or without. The criteria therefore must be clear, well-defined and open to inspection.

Objectives such as the sustainability of farm families, farm workers and rural communities, which are frequently espoused by organic groups, are simply not amenable to this type of regulation.

(p.6)

National standards are a state solution to an issue that could be addressed in other ways, such as by local, personal, and context-by-context action (Guthman 2007a). Even Rigby (2003), while asserting that “there can be no grey areas,” indicates that farms meeting the standards can be anywhere on the spectrum of environmental sustainability, from superb to as poor as any conventional farm. Dupuis and Gillon (2009) emphasize that the potential dilution of the meaning of organic, particularly in the eyes of consumers, poses a great risk to both organic producers (and their price premiums) and the notion of organic itself, which may be increasingly conceptualized within traditional market terms and norms. Once again, this highlights the importance of consumer participation in the processes of defining and verifying organic standards; debates about the meaning of organic are debates about the governance of organic, in terms of both standards and the meaning underlying them (Ibid).

Unfortunately the debate of governance over organic merits increasing use of the term “regulatory capture.” The term refers to a phenomenon among state agencies

charged with protecting or maintaining a public interest, such as sections of the U.S. Forest Service, the U.S. Consumer Protection Bureau, or indeed the National Organic Standards Board (NOSB). Frequently industries that fall under the purview of one of these agencies have a strong incentive to see that the agency in question becomes more favorable to their position, usually by loosening regulations and increasing profits. Capture occurs when an agency comes to condone unconditionally the activities of an industry it was meant to oversee. This is most often a function of that agency becoming staffed mostly by persons who have worked in the industry in question. Often senior officials will alternate between work in the private sector and directly relevant work in regulation, a phenomenon known as the “revolving door” (Robbins 2004).

Regulatory capture threatens the NOSB, especially in light of the more progressive ideals of the organic movement. The board has 15 members. Under the Organic Foods Act the board is to be comprised of 4 farmers, 3 conservationists, 3 consumer representatives, 1 scientist, 1 retailer, 1 certification agent, and 2 “handlers,” or processors of organic food (Strom 2012). But with the passage of time board members have increasingly come from professional and industry backgrounds, as opposed to the activists and scientists that characterized the early NOSB (Howard 2009b). This has manifested particularly in dubious appointments to farmer or conservationist positions. Tom Vilsack, secretary of the Department of Agriculture, recently appointed Carmela Beck, National Organic Program Manager at Driscoll’s, to a position intended to be occupied by a farmer. Ms. Beck works with farmers on management of organic farms, but neither owns or operates a farm, and Driscoll’s is a large organic and nonorganic company with distribution across North America. One Ohio organic farmer who has

sought a spot on the board for years summed up his feelings on the appointment thusly: “I don’t have anything against [Ms. Beck]. She’s probably very smart. But how do you select someone who’s not an organic farmer to represent organic farmers?” (Strom 2012; p. 5).

The USDA Organic Standards are complex, but essentially revolve around the question of what is or is not allowed as an input in an organic product. It is therefore telling that the list of allowable substances is growing rapidly. A two-thirds majority vote from the NOSB is required to a nonorganic substance to the list of allowable inputs. Seventy-seven nonorganic substances were on the list in 2002; today there are more than 250 (Strom 2012). Yet as troubling as this is to some, Rangan (2012), Dupuis and Gillon (2009), and Jaffee and Howard (2009) all state that organic continues to be a civic process with some role for public input. Jaffee and Howard (2009) contrast the situation of organic with that of fair trade, which unlike organic does not have over 600 pages of legal documentation undergirding it:

Companies interested in altering the organic standards have used one part of the state against another, bypassing the NOSB to cut back room deals that surface only at the last minute in congressional riders. Nevertheless, these changes are ultimately a matter of public record and subject to public record and scrutiny. With fair trade, in contrast, there is no legal regulatory framework, nor a requirement of transparency. Many of the deals that have most compromised the standards... can be difficult, if not impossible, to reverse.

Furthermore, although organic encompasses a spectrum of environmental and social stewardship, most still consider the standards effective at mandating some significant degree of quantifiably more ecologically friendly crop production on the farm (Duram 2005). The Organic Program continues to receive high or top marks from most

third-party raters of food labels, e.g. the Natural Resources Defense Council (NRDC)'s Label Lookup, which gives the label on food products a 4 out of a possible 4. Consumer Reports' Greener Choices calls the standards on organic foods "highly meaningful" and "rigorous," and state that they "add considerable value" to a food product (Greener Choices 2012a). The same evaluation describes standards for organic non-food products, however, as inconsistent and not reliably enforced (Ibid).

It is not currently the purpose of the standards to dictate what happens to a crop after it is grown and harvested. However, the packaging, handling, and shipping of a crop have much to do with its overall environmental impact. The primary critique of organic as an environmentally friendly growing practice therefore comes from the concept of Food Miles (Pollan 2006).

### **3.c. Food Miles and Additional Global Environmental Concerns**

The term Food Miles refers to a number of different techniques that quantify the distance that a food travels from site of production to retailer to dinner plate. The distance traveled by a food product, and the importance thereof, is heavily dependent on the mode of transportation used to ship the product. Airplanes, trucks, and freight trains emit various amounts of carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), sulfur dioxide (SO<sub>2</sub>), particulate matter, volatile organic compounds (VOCs), and other gases as they combust fuel to move goods (NRDC 2007). Emissions of these gases are associated with a bevy of environmental concerns.

First, greenhouse gas (GHG) pollution such as from CO<sub>2</sub> and N<sub>2</sub>O is associated with human-induced increases in atmospheric radiative forcing, resulting in the rise of global average surface temperatures. This is the greenhouse effect, the central concern in

the study of anthropogenic climate change (IPCC 2007). Climate Change is seen as one of the greatest challenges to long-term crop yields worldwide, with yields in some places projected to drop by a third or more (Economist 2011b). More drastically, the ecological appropriateness of certain crops is expected to shift entirely (Ibid). Second, VOCs, in the presence of nitrous and sulfuric oxides and sunlight, combine to form photochemical smog, which has adverse local effects on human health (NRDC 2007). Atmospheric sulfuric oxides are also associated with increased regional incidences of acid rain.

Clearly, an environmentally concerned consumer of food should care what happens to a crop between harvest and its arrival on a store shelf. There has been considerable debate about whether organic products that are shipped long distances should be stripped of their organic status (e.g. Weber and Matthews 2008; Blythman 2007; Rigby and Bown 2003). Despite this considerable debate, no corresponding changes have been made to the standards. The USDA Organic label indicates production methods that, at least in terms of on-site, are fairly environmentally benevolent. However, as this section shows, almost every aspect of the standards outside this range is actively contested in one way or another. That the standards are questionable is not good; however, as subsequent chapters will show, that the standards are being questioned is very good.

## Chapter 4

### Private Food Labeling in the United States

Marketing nutritional, ecological, social, and place-based claims on food products is not a novel idea in the United States, but public and private food labeling programs have increased significantly during the latter half of the 20<sup>th</sup> century into the present.

The need to certify food claims became most apparent in the United States at the beginning of the 20<sup>th</sup> century, when the first exposés of horrific conditions in food production facilities (e.g. Sinclair 1906) were released. U.S. Congress passed the Pure Food and Drug Act in 1906, authorizing federal inspection of meat processing facilities and restricting the sale and marketing of poisonous medicines. The passage of this act eventually led to the formation of what would eventually be called U.S. Food and Drug Administration (FDA 2009). But consumer interest in food claims extends far beyond what FDA certifies.

When the Global Ecolabel Monitor, a joint venture of Big Room, Inc and the World Resources Institute, attempted to survey all large labeling services that certify environmental claims, they sent surveys to 340 different labels. The Index now tracks 433. The vast majority of these labels are seen in the Global North, particularly European and U.S. markets. Fig.4a.1 (following page) , drawn from their 2010 report (Global Ecolabel Monitor 2010; p.8) illustrates the increase in the growth rate of labeling services since the late 1970s.

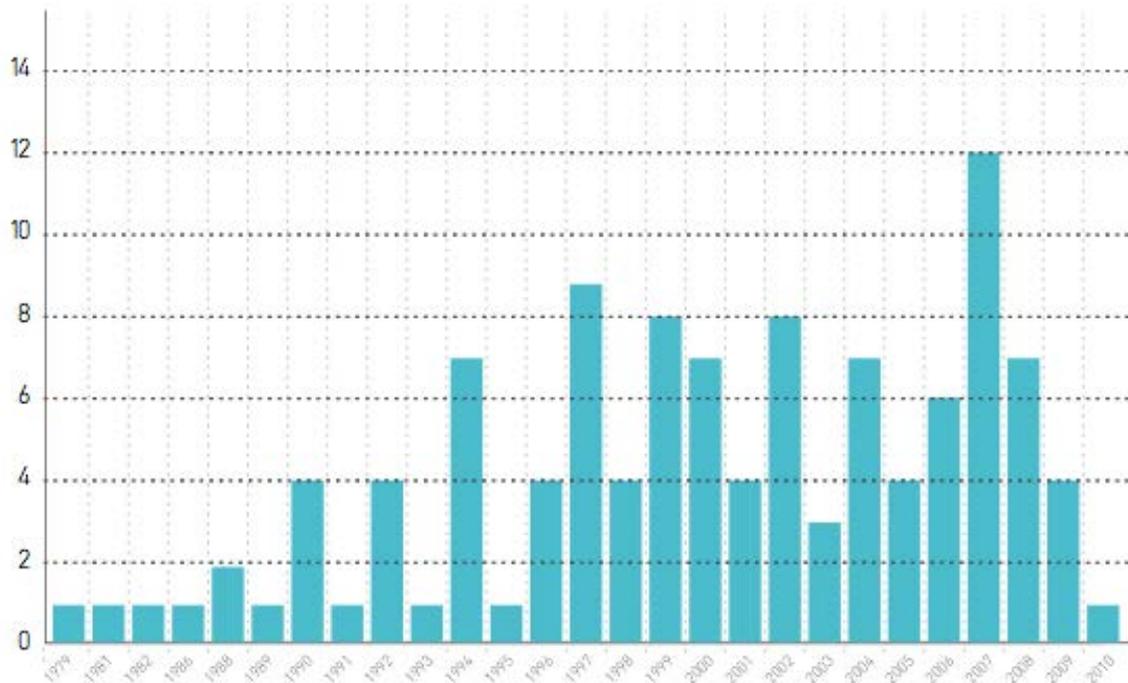


Fig. 4.a.1. . New Ecolabeling Services by Year of Arrival on the Market, 1979-2010. The y-axis indicates the number of new labels that became available consumers in a given year. The x-axis indicates the given year. In light of the diminutive additions during 2010, the report clarifies that a large number of labels have reached the market since its completion. Data derived from Ecolabel Monitor Survey of 113 ecolabeling services (Global Ecolabel Monitor 2010)

Most labels surveyed are available worldwide (62%), while an additional 20% are available in several countries (Ibid). Labeling services fall under a wide range of governance structures (Fig.4a.2, following page):

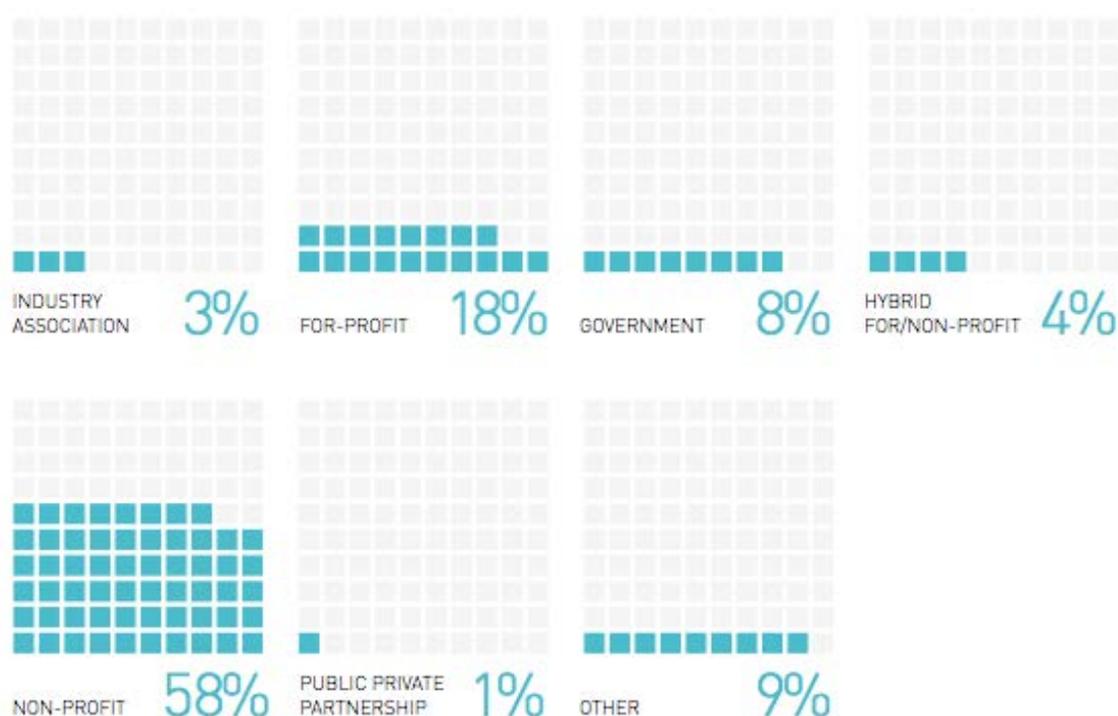


Fig. 4.a.2. Labeling Services Categorized by Governing Body. Data derived from Ecolabel Monitor Survey of 113 ecolabeling services (Global Ecolabel Monitor 2010)

Private food labeling services certify an enormous range of product claims and occupy full spectrums of scope, meaning, and scale. They are run by a diversity of organizations and in the U.S., there is no baseline regulatory context (Rangan 2012). Given this uncertainty and the sheer number of labeling services, it is important to know what is common about the function of these labels. The Ecolabel Report offers additional illumination here. Seventy-one percent of surveyed labels use a pass/fail system to evaluate their clients. Seventeen percent use a tiered system, and 6% use both, typically referring to a program that designates certain unacceptable practices, but also ranks products that meet the common baseline. Ninety-two percent of labels require certification before they may be displayed on a product, whereas the rest require only

registration. Sixty-four of surveyed labels use a third party to verify compliance with their standards, whereas 27% require a second party (such as an organization owned by or associated with a food processor seeking certification) and 4% require only first-party certification. Eighty-seven percent of labels make their criteria available to the public, whereas the other 13% do not. The time span between an application for certification and the granting of that certification varies tremendously by label, as illustrated by Fig.4.a.3:

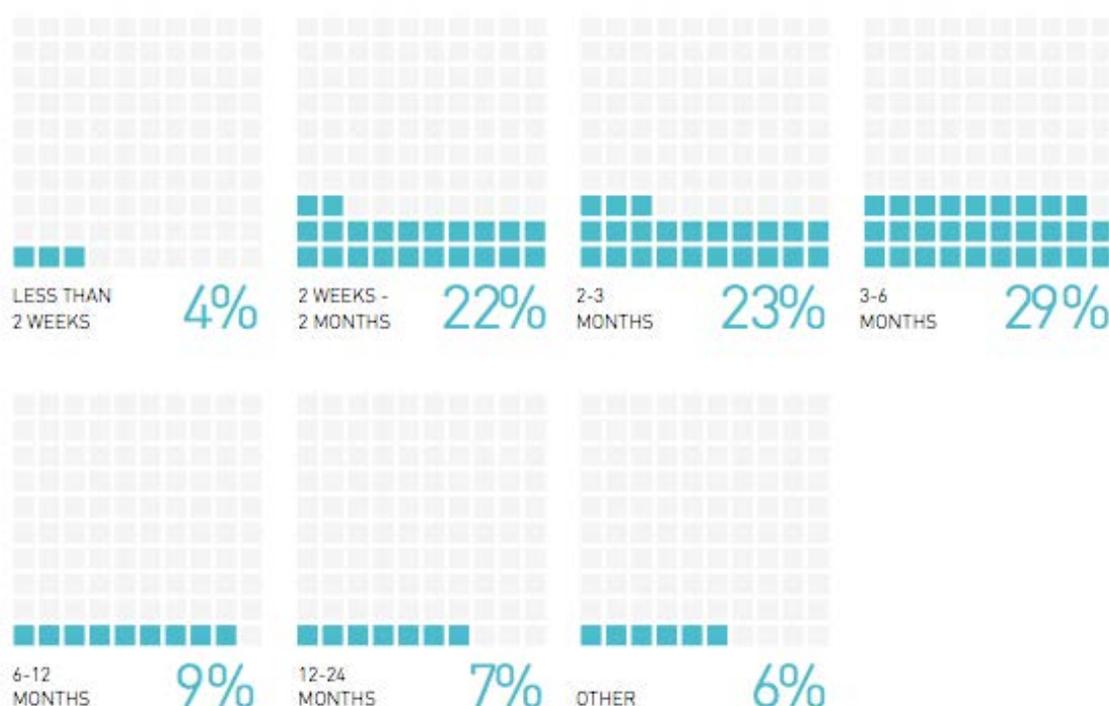


Fig. 4.a.3. Distribution of Times between Application and Certification for Ecolabeling Services. Data derived from Ecolabel Monitor Survey of 113 ecolabeling services (Global Ecolabel Monitor 2010)

The average certification period, derived from that wide spread, is 4.3 months.

Upon certification, products are allowed to display the label for an average of 2 years.

One of the most telling statistics derived from the Ecolabel Report comes from an unexpected place: the numbers about the survey itself. The Global Ecolabel Monitor sent

out surveys on November 18<sup>th</sup> and 23<sup>rd</sup>, 2009, to 340 labeling services, with a response deadline of December 18<sup>th</sup>, 2009, extended thereafter to January 29<sup>th</sup>, 2010, to accommodate more responses. One-hundred-thirteen services (33%) ultimately responded. 48 (14%) more began but did not finish the survey, 140 (42%) never responded, and 35 (10%) declined to participate (Global Ecolabel Monitor Report 2010). At least one of the two organizations behind the Monitor, the World Resources Institute is a well-known and established environmental think tank and NGO, and its name was in plain sight on every survey. It appears that a highly organized and reputable attempt to survey ecolabeling services across the globe resulted in a response rate of about one-third.

This reflects an important characteristic of private-sector food labeling at the current time. Following Rangan (2012), “there is no level playing field.” There is not yet any consistency to the model. Corresponding with the growth of labels themselves, interest in verification services is growing, but not enormous. This is especially true in the United States because there are essentially no *regulations* dictating how a food label can be made, what can be claimed, and on what grounds (Rangan 2012; Jaffee and Howard 2009).

Recent years have seen efforts by interested NGOs to streamline the labeling market. This is accomplished by the promulgation and (ideally) widespread acceptance of voluntary frameworks for labeling services. Catchy alliterations abound to explain the frameworks, such as Consumer Report’s call for Truth, Transparency, and Trust (Rangan 2012), or SustainAbility’s “4D” proposal to better (1) Define label criteria, (2) Deliver better sustainability outcomes, (3) Demonstrate that better outcomes are being achieved

through labels, and through all this create more (4) Demand for such labels, both from business-to-consumer and business-to-business (Watanatada and Mak 2011).

The suggestions by SustainAbility and the Consumers Union, and the criteria used by the Ecolabel Index, NRDC Label Lookup and Consumer Reports Greener Choices contain common suggestions or implications about what makes a label credible. First, it is clear that labels work best as a civic process, with active consumer demand and interest. This manifests most importantly in the transparency of the highly variable decision-making processes that go into the formation of a standard, and the role of consensus and democratic input in these processes. However embattled the public role in organic may be, this remains in a fundamental way the most important part of its system (Dupuis and Gillon 2009; Jaffee and Howard 2009).

Second, there are at present demonstrable limits to the ability of a label to properly “scale up.” The impediments to this manifest particularly when standards with too wide or ambitious a jurisdiction become simplified, and therefore dilute in power and meaning (Guthman 2007a). This can result in a corresponding dilution of consumer confidence in the label, as some see occurring with Fair Trade Certified (Goodman 2009; Jaffee and Howard 2009) and organic (Darnhofer et al. 2010; Dupuis and Gillon 2009; Guthman 2004). This certainly risks reversing the Demand that SustainAbility sees as key to improving the quality of labels.

Third, the benefits to a consumer of a label and the issues it addresses should be clear. Unclear or misleading labels impede the ability of more meaningful ones to build rapport to consumers and foster trust between consumers and third parties. The more consistently straightforward meaningful labels are, the better the entire labeling system.

Of course, there are multiple strong incentives for various industries and interests to act in ways uncooperative with these three central suggestions. An example of a voluntary private-sector food label for each of the suggestions will further illustrate this point.

#### 4.a. Food Labels as a Civic Process: The Non-GMO Project



Fig. 4.a.1. Non-GMO Product Label. (Non-GMO Project 2012)

The Non-GMO Project began in 2003 the “People Want to Know” Campaign at The Natural Grocery Store in Berkeley, California. The campaign was a reflection of consumer and employee demand to know if genetically-modified ingredients were being used in food products; the United States currently requires no such labeling (Funk 2007). A campaign at one grocery store quickly snowballed into a letter-writing campaign to food producers and processors that involved the official participation of 161 different grocery stores and co-ops nationwide. The initial articulated goal of the campaign was to find out what products had GMO inputs. This was a mixed success: a lack of consensus on regulation of what counts as a GMO input, and what percentage of GMO inputs counts as significant, resulted in an unorganized range of responses. Similarly

inconsistent were the many GMO-related food product labels that preceded the Non-GMO Project, which varied wildly in criteria and clarity of criteria (Neuman 2009).

Taking note of this campaign, The Natural Grocery Company (and Big Carrot Natural Food Market (based in Toronto) founded the Non-GMO Project to develop and implement a consistent standard. The Project was officially founded in 2005. They agreed upon a stipulation that ingredients in a product contain no more than .9 percent biotech material, mirroring the mandatory disclosure standard used in European markets (Neuman 2009). The Non-GMO Project grew continuously in size from 2005 to 2012, coming to cover most markets in North America and contracting with grocery retailers such as Whole Foods (Whole Foods 2012).

Though a few critics within the organic movement accuse the Non-GMO Project of undermining their own agenda by allowing a small portion of a verified product to be GM (e.g. OCA 2011), the Non-GMO Project is frequently upheld as an excellent label. The NRDC Label Lookup, for instance, gives the label a full 4-out-of-4 rating, noting that the standards are strong, transparent, effectively and consistently tested, and developed with “broad stakeholder input” (NRDC 2012). Michael Potter, the CEO and founder of Eden Foods, finds so many issues with USDA Organic that he refuses to put the label on his products (Strom 2012). Potter sits on the Non-GMO Project Board of Directors and has endorsed the project for years (Neuman 2009).

In the context of the global market forces and institutions that have mandated widespread, often undetectable increases in use of GMO inputs, the Non-GMO Project may not seem like a comprehensive response. Indeed, as Guthman (2007a) says of private food labels in general, the Non-GMO Project delegates authority to individual

consumers to make the determination of whether or not the GMO issue is an issue, by choosing or not choosing to buy Non-GMO Verified products. There is much misinformation and consumer confusion over the significance and meaning of the GMO debate (Huffman 2004). It is clearly an area in which consumers would benefit, theoretically, from proper state intervention and guidelines (e.g. Fliegelman 2010; White 2010; Luehr 1992).

Yet the Non-GMO Project should be seen as at least a partial success. The Non-GMO Project has succeeded in democratically developing a clear standard backed up by reliable verification measures. It has raised awareness of the issues and debates surrounding genetic modifications in agriculture. There are debates and disagreements about the standards, but this should be seen as a healthy sign. The Non-GMO Project promotes solid but potentially mutable standards for a shifting, growing, not-entirely-understood issue. The key to good standards and labels is active democratic engagement, and the Non-GMO Project has fostered that.

#### 4.b. Upscaling Food Labels Can Be Imperfect: Certified Vegan



Fig 4.b.1. Certified Vegan Product Label. (Vegan Action 2012)

That a consumer movement is well-established, well known, and encompasses large numbers of active participants does not guarantee that a label born of the movement will be effective or meaningful. Certified Vegan is run by Vegan Action, a NGO based in Richmond, Virginia. It is an imperfect label: though its definition appears to be fairly clear, a consumer taking the label at its ostensible value may be misled.

Vegan Action defines Certified Vegan as applying to products that “do not contain animal products or byproducts and that have not been tested on animals” (Vegan Action 2012). However, certified products may be processed on machinery that also processes poultry and dairy products. And although final products may not be tested on animals, their ingredients may be. This magnifies the importance of the verification processes employed by Vegan Action. Unfortunately the certification and verification processes for Certified Vegan are essentially voluntary – interested companies sign statements indicating their compliance with the standards. Follow-up/on-site verification is not performed by Vegan Action (Greener Choices 2012b).

Vegan Action certification has one clear advantage over programs like USDA Organic: it is cheap. They offer price tiers for certification, meaning that smaller

producers pay less and vice-versa. This highlights a tension in labeling highlighted by Guthman (2007a): labels may significantly raise the price of a product, either through the price premium associated with certification or with the more expensive production practices necessary to comply with the relevant standards. This produces a form of product scarcity and exclusivity where there was none before, proportional to the increase in price. This restricts the ability of the label to disseminate whatever alternative ideas about food production or distribution the label is meant to represent. In some ways this reflects the debate surrounding the .9% quota used by the Non-GMO Project: should a label dilute its meaning somewhat in order to reach a broader audience at a lower cost? Is it more important for a label to be small but meaningful or more widespread but less meaningful? Vegan Action implies this duality and promotes the latter as a wise course of action (Vegan Action 2012):

One of the goals of Vegan Action is to create growth in the vegan marketplace and increase the availability of vegan products. Our primary reason for promoting a vegan lifestyle is to protect animals from suffering. Vegan Action is very concerned with the health of humans and of our environment, but we realize that in order to accomplish our goal of protecting animals, there needs to be a large variety of animal-free alternatives. We recognize that veganism must come to the mainstream before major changes will happen with animals and the environment. The only restrictions we are willing to put on our certification is: vegan or not vegan. Other separate companies issue trademarks for organic, no trans fats, etc.

The Label Lookup is not entirely sympathetic to this perspective, giving the label a two-out-of-four rating. Both Label Lookup and Greener Choices criticize the label for not seeking broader input on decisions about the formation of their standards and not being entirely clear about how frequently standards are self-verified by interested

companies (NRDC 2012; Greener Choices 2012b). Certified Vegan demonstrates that even well-established ideas can be difficult to translate into effective large-scale labels, depending whether one favors label effectiveness or market share.

#### **4.c. Clearer is Better: The Dangerous Case of “Natural”**

“Natural” is a term used frequently on food labels with very little consistency of meaning. “Natural” on poultry and meat products indicates USDA-certified restrictions on artificial inputs such as preservatives and sweeteners (Eng 2009). In any other context, however, the term can mean anything. It is used in a variety of contexts with little to no consistency of meaning or underlying claims (Rangan 2012).

A label with no clear meaning is not necessarily a dangerous thing: there will always be fraudulent product claims. Furthermore, some companies are forward about what they are asserting with the natural label; Dean Foods, for instance, defines it as “produced without added hormones, artificial sweeteners, artificial colors, flavors, preservatives or high fructose corn syrup” (Eng 2009).

However, consumer confusion about the term and conflation between natural and organic are well-evidenced problems (Rangan 2012; Eng 2009). Many think that natural means as much or more than organic. Combined with the fact that natural foods are almost always cheaper, natural may undercut organic with a decidedly less meaningful alternative. Even where the term is regulated, what legally counts as natural can be surprising. For instance, the FDA has stated that high-fructose corn syrup, when produced without certain synthetic inputs, fits the definition of natural (Crowley 2008).

Some private companies known for selling USDA-certified organic products, such as Stonyfield, have come down hard on natural. Under the “Why Organic?” portion

of the Stonyfield website, an easy-to-read chart distinguishing between natural organic is offered. As indicated by the chart, Stonyfield's take on natural is not flattering (Fig. 4.d.1, Stonyfield 2012):

	<b>Organic</b>	<b>Natural</b>
<b>Toxic persistent pesticides and herbicides</b>	Not allowed	Allowed
<b>GMOs</b>	Not allowed	Allowed
<b>Antibiotics</b>	Not allowed	Allowed
<b>Growth hormones</b>	Not allowed	Allowed
<b>Sludge and irradiation</b>	Not allowed	Allowed
<b>Animal welfare requirements</b>	Yes	No
<b>Lower levels of environmental pollution</b>	Yes	Not Necessarily
<b>Audit trail from farm to table</b>	Yes	No
<b>Certification required, including inspections</b>	Yes	No
<b>Cows required to be on pasture for pasture season</b>	Yes	No
<b>Legal restrictions on allowable materials</b>	Yes	No

Haynes Dairy, NH  
One of the Organic Valley family farms that supply milk for our yogurt

Fig.4.c.1. Stonyfield comparison of standards for organic and natural. (Stonyfield 2012)

Rangan (2012) proposes that either the federal government produce a comprehensive definition of natural, or restrict its use. Regardless of the proper course of action, it is clear that the ambiguity of the term “natural” has caused confusion among consumers interested in buying greener food products. The term highlights the danger of letting such food claims go unchecked in the market. Clearer is better.

## Chapter 5

### **Discussion: Are U.S. Private Food Labels Neoliberal Governance?**

U.S. private food labels are neoliberal governance. That does not, however, mean they are a failure. All three food label examples in the preceding section highlight the fact that rules and regulations are at best uneven when it comes to food labels and claims. Highly meaningful private food labels can and do proliferate in the U.S. market, though there are clear challenges to maintaining meaning while increasing the scale of a label (Watanatada and Mak 2011; Jaffee and Howard 2009). It is also clear that although food labels are in many ways responses to the environmental and social ills wrought by industrialized agriculture, they have internalized the logic of neoliberalism in important ways.

First, on a basic level, they attempt to regulate food production through influences on consumption choices, i.e. the market, with at most a patchwork of state entities providing oversight (Guthman 2007a). Labels are instead governed primarily by the ratings of the raters: third-party label verification services like Greener Choices, the Ecolabel Index, and the Smarter Living Label Lookup. Private labels are certainly capable of making a dent in environmental and social problems in agriculture, but it is currently at most a partial recompense for the privatization of conditions of agricultural production (Guthman 2007a; O'Connor 1998). In the words of Guthman (2007a):

...to regulate at the scale of the (often privileged) consumer is hardly commensurate with the scale at which social and ecological problems are generated and is bound to be highly uneven in its

effects. How can individual consumption decisions even pretend to create broad public benefit?  
(p.472)

Second, the Ecolabel Index, SustainAbility, and other nongovernmental and private analyses of the state of private food labeling almost always support the implicit neoliberal assumption that the state cannot or will not govern. At the same time that USDA Organic is highly regarded by ratings agencies, only Consumer Reports (of the agencies cited in this essay) explicitly promotes further state intervention in the food labeling sector (Rangan 2012). There is an obvious logic in business-oriented NGOs promoting solutions exclusively through the private sector but nonetheless the state gets an insufficient hearing in their reports.

Yet this is not to imply that such organizations are naïve about the scale of the challenges that private-sector labels seek to address. Instead, many NGOs and relevant agencies seem to possess a certain shyness when it comes to discussing the state. The SustainAbility report co-authored by Watanatada and Mak (2011) serves as an example. First, they clearly understand, and effectively document, the scale of the challenge:

If the move to a more sustainable world requires new trading relationships and new forms of consumption – such as services, sharing, re-use, and yes, less consumption – a product-by-product focus may end up missing the larger point. Too much focus on any one product may distract from the greater imperative to keep production and consumption within environmental limits and to ensure sustainable livelihoods for all (p.44).

With this in mind, they acknowledge the potential of national regulations as a possibility, but frame such action as a discussion to be held on not-entirely-clear terms, by not-entirely-clear parties, further down the road. This is symptomatic, and understandable: the same can be said of popular food writers like Marion Nestle, Alice

Waters, Eric Schlossberg, and remarkably, Michael Pollan (e.g. Guthman 2007b). Even while many food writers effectively set up the problems and challenges of food politics and/or industrialized agriculture, the solutions they propose are often highly skeptical of state solutions, only somewhat less skeptical of collective action, and frequently converge on the same note: focus on what *you* put on *your* dinner plate. An intuitive suggestion to be sure, and not a bad one, but never proportional to the problems raised in their critiques. Even many radical critiques of the privatization of nature dismiss the state as part of the solution (McCarthy 2005).

As the history of USDA Organic in this thesis shows, the U.S. government's record of managing food labels (and connecting labels to the processes and problems they are meant to address) is far from perfect. Concepts frequently applied in political ecology studies of food politics, like regulatory capture and the revolving door, portray the state in a remarkably neoliberal light: where regulations exist, they are coopted by private interest groups (Thorsen and Lie 2006). But, following Eckersley (2004), the state (be it in the form of the U.S. Federal Government or intergovernmental organizations such as the United Nations and European Union) remains perhaps the only institution currently in existence with the democratic *potential*, the existing international authority and credibility, and the sheer scale to undertake the task of improving complex, global, industrialized agricultural networks. And while histories of the contestations of organic such as that by Dupuis and Gillon (2009) illustrate the multiple tremendous challenges to the integrity of mass-market food labels, they simultaneously

Whether one favors private solutions, public solutions, or something in between, clear that labels have done some good, and that increased public information and

engagement is good. Academics can be of much service here: Jaffee and Howard (2009) directly assert that a stronger focus on the problems of global privatization and market integration during the developmental phases of the organic and free trade movements would likely have resulted in stronger standards. Who better to help food and environmental activists than those who draw these connections for a living?

Similarly, labeling organizations, and the public that buys their labels, would benefit from increased transparency. That third-party verifiers have stepped in to evaluate these labels is good; additional academic investigations of labels, and ratings agencies, would be even better.

Finally, for anyone interested in these issues, for whatever reason, it is clear that more interest and engagement is good. Many of the works cited in this thesis, from Pollan (2006) to Guthman (2007a) to Watanada and Mak (2011), take insufficient consumer interest in these issues as a starting point for the solutions they offer, even if (as in Pollan's case) raising consumer interest is a central purpose of their publication.

Polanyi's theory of the double movement implies that the privatization of global agriculture will galvanize a growing portion of the general public (though unfortunately, exactly *how* this happens is not fully explained by Polanyi). Regardless of whether food labels themselves are properly understood as a Polanyian response, citizen engagement clearly is. In this way the debates about USDA Organic, Fair Trade, the Non-GMO Project, and so on, are healthy on a fundamental level. Continued involvement in these debates raises the potential for the debates themselves to draw attention to the broader issues in agriculture that many academics and food writers wish to highlight. Food labels and standards, administered by any institution, are at their best democratic, transparent,

effective, and cognizant of the multidimensional issues that led to their inception.

Whatever the issue addressed by a label or standard, in topic, scope, and scale, let us all keep talking about them.

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### **Spring-Summer 2012**

Research Assistant, Intergovernmental Panel on Climate Change

State College, Pennsylvania – Petra Tschakert, Collaborative Lead Author

Read, summarized, and compiled academic articles for Chapter 13: Livelihoods and Poverty. Assisted Professor Tschakert with writing and editing sections of Chapter 13. Focus upon the relationships between development economics, structural and persistent inequality, poverty, and the economic consequences of environmental changes caused and/or accelerated by climate change.

### **Spring 2012**

Grant Writing Intern, New Leaf Initiative

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Wrote formal research grant proposals for sustainability and community outreach projects in State College. Collaborated with others teams to build local organizational ties and host fundraiser events. Assisted multiple other teams with projects intended to educate a broader public about the benefits and feasibility of sustainable development.

### **Summer 2011**

Communications Intern, Natural Resources Defense Council

Manhattan Office – Smarter Living Team

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Wrote journalistic and technical articles for NRDC's Smarter Living and Smarter Business websites. Articles focused on consumer education and environmental stewardship in the U.S. private sector. Topics written about include an article on a denim-to-insulation recycling initiative, an organic, fully unionized strawberry farm with a dedication to public engagement, a pollution offsets program in the bioplastics industry, and U.S. vehicle fuel efficiency and emissions standards. Assisted the Smarter Living team with copyediting, fact checking, and website HTML revisions.

### **Spring 2011**

Participant, Parks and People Experiential Study Abroad Program, Penn State

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Dwesa-Cwebe Nature Preserve, South Africa

Worked with multiple communities to study politics and science of community resource conservation. Created educational projects on climate science and presented them in Dwesa-Cwebe communities and schools. Collaborated with groups of students from multiple South African universities on field research projects.

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Research Assistant, Anticipatory Learning for Climate Change and Resilience Project

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Analyzed multiple community survey data in comparison to regional climatological projections. Designed multimedia presentations on perceptions and responses to precipitation changes in Tanzania.

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Writing Intern, Sierra Club

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Produced and edited public statements and letters for the campaign. Organized letter-writing group and led weekly meetings.

### **HONORS**

College of Earth and Mineral Sciences Student Marshal, Summer Graduation 2012

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## **ACTIVITIES**

Teacher, State College Delta Program, Spring 2012

Experiential Week Class – Amy Allison, Supervisor

Title: The American Consumer

Survey course introducing secondary school students to environmental ramifications of everyday consumption choices such as food purchasing, driving, use of electricity, and more. Focus on the role of the internet in disseminating information about environmental concerns, and environmental claims about products made by private and third-party verifiers.

Teacher, State College Delta Program, Spring 2008

Experiential Week Class – Amy Allison Supervisor

Title: Justice and the State

Taught secondary school students introductory political and social theory, with an emphasis on the relationships between social justice and the role of the state. Authors discussed include John Rawls, Plato, Niccolo Machiavelli, Immanuel Kant, Georg Hegel, Aristotle, and Harold Frankfurt.

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