

THE PAST, PRESENT, AND POSSIBLE FUTURE OF THE ORGANIC FOODS
MOVEMENT IN THE UNITED STATES

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ABSTRACT

PAST, PRESENT, AND POSSIBLE FUTURE OF THE ORGANIC FOODS MOVEMENT IN THE UNITED STATES

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SUPERVISING PROFESSOR: BROCK BROWN

Due to scientific discoveries during the late 19th century, producers of commercial agriculture began manipulating food production with the use of synthesized chemical inputs and methods that altered the natural means of production. This shift produced some immediate and long term environmental consequences. The “organic” agriculture movement was a response to the growing threat of these ecological impacts, as well as other perceived social, health, and economic consequences of industrial agriculture. The organic movement originated, in the English speaking world, in the United Kingdom in the early 1900s and diffused to the United States during the 1940s. During the next

several decades, the movement gained popularity through the work of organic scholars and activists. Beginning in the late 1970s some organic producers began to use more industrialized methods of production which challenged some of the classical organic standards. By 1990, the United States began working on some federal standards, issuing the National Organic Rule in October of 2002. The National Organic Rule allowed the National Organic Program, established in 1990 under the USDA, to regulate and accredit organic agricultural products. Have the use of “industrial organic” and the USDA organic standards shaped the current organic movement? This paper interprets the original ideals and objectives of the organic movement at the time of its conception and determines whether or not these ideals are realized in the modern era of organic food systems.

Introduction

This paper explores the origins of the organic movement in the English speaking world in order to discover what differentiates organic production methods from conventional production methods. This paper will discuss the origins of the movement in the United Kingdom and how it was introduced in the United States during the early to mid 1900s. Some principles and objectives of organic production are identified in Chapter I.

Starting in the 1970s, the organic movement begins to diffuse through social and cultural outlets within the culinary community. This section focuses on the popularization of organic through restaurants and one food advocate's work in particular. As pioneers of the organic movement helped increase the consumer base, it became clear that the organic movement from the consumer end also possessed a certain code. Principles and objectives of organic consumption established during this period are defined in Chapter II.

Another form of organic, known as "industrial organic" also arose in the mid 1970s. Chapter 3 discusses the formation of industrial organic. Chapter III addresses the industrial organic process and how it differs from the classical organic model.

In the fourth Chapter the USDA regulatory process for organic is discussed. An overview of the requirements for meeting USDA standards of organic is provided. The process for obtaining USDA organic certification is discussed along with the meaning behind different USDA organic seals.

In Chapter V, there is a comparison between USDA organic and original organic, as defined in Chapter 1. How do USDA standards compare to the original organic ideals? In this section, differences between the two sets of organic standards are analyzed.

How can consumers and producers contribute efforts to maintaining integrity to original ideals within the organic movement? In the conclusion, possible solutions for a more authentic organic movement are offered. In addition, the pros and cons of industrial organic are discussed in further depth, and ideas for a more widespread application of organic methods are explored in Chapter VI.

Chapter I: The Origins of Organic Agriculture

In the early to mid 1900s, the American agricultural industry was undergoing a massive transition. Due to the implementation of recent scientific and technological advances in the area of agriculture, crop yields increased and labor required in crop production diminished. Practices were becoming more mechanized and more intensive. The addition of synthetic chemical inputs was on the rise. Farming operations became larger and designs were intended to maximize economy of scale (Newman, 2012). Genetic diversity of crops shrunk as food producers sought to produce food that would ship well and hold up under transportation, favoring heartier breeds. This led to diminished genetic diversity and a decrease in species variety as production became more standardized (Jernow, 2012). A shift also occurred among consumers. People became more familiar with branding and trademarks, so producers strove for uniformity in taste and appearance of their products. Land was being used intensively and to cultivate widespread monoculture crops. Intensive farming practices were more prevalent as some farmers and land owners sought to maximize profits (Newman, 2012). The more intensive land use practices diminished biodiversity within the food landscape and resulted in some immediate and long term ecological effects.

The dust bowl of the 1930s was the immediate result of the ecological affects of this altered way of producing food and the direct effect of over-cultivating areas of marginal rainfall (Newman, 2012). Land used intensively for agriculture was subject to

widespread depletion of fertility, causing it to become more vulnerable to the erosive properties of wind and other natural systems. Reduced precipitation throughout the 1930s created disastrous effects on the vulnerable, over cultivated soil. Journalist Carey McWilliams chronicled the industrialization of agriculture and the resulting dust bowl disaster in his book *Factories in the Fields*. He explored the nature of these industrial farming systems in California, including the environmental and socioeconomic implications of more industrialized agriculture system. McWilliams was highly critical of how the industry treated people providing labor services, drawing connections between the environmental and worker's rights issues associated with the industrial agriculture movement (McWilliams, 1939).

Origins of Organic

During this tumultuous and transitional time, there were a number of free-thinking agriculturalists who saw the issues with the transition towards industrial agriculture in the United States. The industrialization of agriculture was largely driven by the opportunity for economic gain, and evolved from an exploitation of the environment and an unlimited license to pollute and alter the landscape (Howard, 1943). This treatment of nature was common during the early to mid 1900s as the mainstream philosophy towards nature within the United States was one of domination and entitlement. Contrastingly, those who advocated for an organic movement had a different interpretation of the human-environment relationship. The alternate view was characterized by a more egalitarian view of the environment and the human place within the global ecosystem. Ecology was a relatively new field within the scientific community.

The idea of the sanctity of natural systems and the concept of holistic thinking with regards to the environment are ancient values reflected in the agricultural methods of many cultures including Peruvian and ancient Mayan culture, India, China, and the people Indigenous to North America (Howard, 1943). Drawing upon these cultures and his environmentally conscious contemporaries, one of the predominant founders of the organic movement helped frame an agricultural system that was more harmonious with ecology. The oft-considered father of the modern organic movement in the English speaking world, botanist and agriculturalist Sir Albert Howard, assimilated some of these ancient methods in his extensive research and experimental agricultural projects to produce a comprehensive body of knowledge on what would become known as “organic” agriculture (Addison, 2002).

Howard was born in 1873 and worked for many years writing and researching on agriculture. He received his education at Cambridge. Between 1905 and 1931 he worked as an Economic Botanist in India, supervising many agricultural centers and conducting the research which would inform many of his publications (Organic Guide, 2012). In 1940 he published a comprehensive and concise guide to organic agriculture, a book entitled *An Agricultural Testament*, where he made the claim that scientific agriculture is out of touch with the natural order. He details the four main methods of soil maintenance he identified in his extensive studies and research. The four include the methods of nature, the “supreme farmer,” the agriculture of past civilizations, the agriculture of the Eastern hemisphere (which in his time had been largely) unaffected by Western science, and the agriculture of his contemporary Western nations (Howard, 1943). Howard

analyzes these different systems and affects of these different methods of soil maintenance on soil fertility to establish his basis for organic agriculture [Table 1.1].

Sir Howard discusses how nature should inform organic farming practices. He makes the observation that natural systems are diverse and various [Table 1.2], with no plants or species existing by themselves in large number. This is one of the basic principles of ecosystem ecology; a scientific discipline which studies the process of regional and global ecosystems (Regents of the University of Michigan, 2008). Sir Howard suggests observation of different ecosystems including the prairie, rainforest, and aquatic systems like the ocean, lakes and streams. “Mother earth never attempts to farm without live stock; she always raises mixed crops; great pains are taken to preserve the soil and to prevent erosion; the mixed vegetable and animal wastes are converted into humus; there is no waste; the processes of growth and the processes of decay balance one another; ample provision is made to maintain large reserves of fertility; the greatest care is taken to store the rainfall; both plants and animals are left to protect themselves against disease (Howard, 1943) [Table 1.2].”

At the time Howard was researching and writing, artificial fertilizers had been in existence for around one hundred years. They were first synthesized by German scientist Justin von Liebig in 1840. Shortly after, in 1842, John Bennet Lawes of London had discovered that the addition of sulfuric acid to phosphates would increase crop yields. This method immediately spread throughout London and was in use in Baltimore and Boston within the decade (Brenton, 2012). This time period represents the first major deviation from organic farming methods. Though Sir Howard’s definition of organic farming spans much more than just avoiding artificial fertilizer, the mid-1800s became

the time when nonorganic farming means began spreading widely in the Western world with the addition of these synthesized fertilizers.

Sir Howard's largest problem with artificial fertilizers is that they interfere with the ecology of soil life. Synthesized fertilizers replace the organic processes which supply soil with vital nutrients, which Sir Howard explains; over time will contribute to nutrient depletion and loss of soil fertility. Soil is largely composed of a substance called humus [Table 1.2], a substance which results from the living bacteria and fungi of soil working to decompose dead animal and vegetable matter. The resulting humus is the organic matter which combines with mineral matter in the subsoil to provide proper nutrition for plants to grow (Howard, 1943). The addition of artificial fertilizers interferes with this delicate balance of organic and nonorganic matter, altering the micro-ecosystem of the soil.

Aside from issues with synthetic fertilizers, Sir Howard identifies other problems associated with contemporary Western farming. He identifies the dramatic size increase of farms, the increased use of machinery, widespread monoculture/lack of crop rotation, increased occurrence of diseases in animals and crops, and increased addition of preservatives to foods. Ultimately Sir Howard states that Western farming practices contribute to the "growing menace of soil erosion (Howard, 1943)." Sir Howard's definition of organic farming and agriculture encompasses a total method which, through each step of the process, preserves and contributes to the nutrition of soil.

Another significant early organic food advocate was Lord Northbourne who wrote *Look to the Land*. He considered the farm to be a living entity that must be in balance.

Lord Northbourne had a philosophical and spiritual view towards agriculture. His book, *Look to the Land*, illustrates his view on organic agriculture in his own words “layman’s” terms. He wanted to inform and inspire people to view the farm itself as an organic system that must be in balance or homeostasis in order to maintain health and support life (Northbourne, 1940). This conceptual framing was highly dependent on the idea of “Living Soil [Table 1.2],” by now a widely accepted concept for advocates of the organic movement. Lord Northbourne was also the first to call this new, alternative method “organic agriculture (Boyden, 2012).”

Lady Eve Balfour, another major advocate of organic, wrote a book entitled *The Living Soil* and crusaded for soil fertility, speaking out against artificial fertilizers. “My subject is food, which concerns everyone; it is health, which concerns everyone; it is the soil which concerns everyone though they may not realize it (Balfour, 1948).” Her connection between soil and health [Table 1.2] was an idea also expressed by Sir Howard, greatly emphasized in his publication the *Soil and Health*. In her writings and lectures, she drew the connection between healthy soil and healthy crops, animals and people [Table 1.2]. Her belief was that no part of the food web exists in isolation and that each step in food production influences the step before and after. To these ends, she supported and advocated for organic farming practices.

In 1945 she formed the Soil Association which received criticism and bad publicity from contemporary farmers and groups. The message of the Soil Association directly contradicted the increasingly popular practice of adding artificial chemicals and fertilizers in order to increase yields and profits. Though Balfour and the Soil Association members were publically derided and often undermined, she continued to hold the group

together with her drive and enthusiasm for organic farming methods. She toured the USA, Australia, New Zealand, Kenya, Europe, and other places worldwide to espouse her message promoting organic farming practices and the importance of prioritizing soil fertility. The Soil Association is still an active organic agriculture advocacy group within the UK. (Paull, 2011).

Her message was primarily one of optimism. Lady Balfour believed that by good land and soil stewardship, an organic approach to farming, and through proper management and conservation of resources, many of the eminent problems of industrial agriculture, such as pollution and loss of soil fertility, could be mitigated or avoided. She believed that if people were informed to the message of the Soil Association and the organic movement they would want to participate in the cultivation of organic foods (Reed, 2012). She championed the idea of educating and engaging people in the organic process as a means of furthering the movement. This spirit of community involvement is another key objective of the organic movement [Table 1.3].

The first well-known promoter of organic agriculture within the United States was Jerome Irving Rodale. A playwright, author, editor, publisher, and business owner, he would come to popularize and diffuse the concept of organic in US. He founded Rodale Inc. in 1930 a company which would publish and promote many books on organic farming and health. Inspired by Sir Albert Howard's research, he started the Rodale Organic Gardening Experimental Farm in Lehigh County Pennsylvania in 1940. On the farm he tested many of the organic concepts laid out by Sir Howard. Features of the farm included aerobic and anaerobic compost heaps, important to the idea that waste can always be recycled in organic agriculture and that the growth and decay cycles are

continuous [Table 1.2]. The Experimental Farm was also Rodale's personal test site where he implemented many of his own theories on organic gardening which he was able to test and later write about in his books and periodical articles (U.S. NPS, 1999).

In 1942 he started *Organic Farming and Gardening* magazine. At first it wasn't well received and only returned 10 interested responses of the first thousand copies he mailed out. "With this magazine Rodale attempted to disseminate his ideas about the benefits of organic practices to health and the environment and used it as a national clearinghouse for information related to organic practices ((U.S. NPS, 1999)." In 1945 he published *Pay Dirt*, the first American book to introduce, explain, and make accessible the concepts of organic farming and gardening. It was his first of many books on the concepts of organic gardening His book *How to Grow Fruits and Vegetables using the Organic Method*, published in 1961, remains one of the definitive guides to organic gardening to date.

In 1947 he developed the non-profit Soil and Health Foundation (SHF). The SHF was headquartered in a small greenhouse on the premises of the experimental farm. Within the first 5 years of its creation, the SHF had trouble gaining support from research institutions as many of them were "funded and supported by the large chemical companies that Rodale so openly criticized (U.S. NPS, 1999)." This is similar to the struggles and the controversy Lady Balfour faced in the UK. The organic concept of the soil- health connection [Table 1.2] was received with skepticism in most conventional medical communities.

In 1949, Rodale split the *Organic Gardening and Farming* periodical into two separate publications, *Organic Gardening*, which focused on the growing urban and suburban gardening communities, and *Organic Farming* which was directed at medium sized commercial farms. With this move, his publications quickly became more popular as they were able to direct their focus at either one or the other audience. The publications featured articles from scientists and professors, testimonials from readers, commentary for Sir Howard and Rodale and excerpts from books on traditional and organic agriculture (U.S. NPS, 1999).

One of the largest conflicts Rodale encountered was due to his choice to emphasize his impassioned belief in the connection between eating organically produced food and preventing disease. This is a controversial idea also reflected in the works of Sir Howard, Lady Balfour, and Lord Northbourne, especially with respect to the soil-health connection. The difference is that Rodale aggressively worked to diffuse this theme with books and publications which heavily emphasized his views which were not well supported by scientific research.

Rodale continued to struggle against “the establishment”, as he called it and was “often publically and personally attacked by physicians for what they considered unfounded theories by an uneducated layman (U.S. NPS, 1999).” This didn’t stop Rodale from continuing to spread and espouse his beliefs on the health benefits of organic foods, even when the Federal Trade Commission brought him to court to challenge him on charges for deceptive advertising brought up when promoting his book *The Health Finder*, an encyclopedia which addressed medical issues from a preventive point of view.

Though Rodale began touring and lecturing in the 1940s, spreading his message about the “evils” of artificial fertilizers, food additives and unnatural means of cultivation, his sometimes controversial ideals, especially with regards to prevention of disease, made it difficult for him to gain research funding and political support at first. It wasn't until the 1950s that his movement gained significant influence. In 1952, New York Congressman James Delany lobbied for his cause before the House Select Committee with the interest of investigation additives in food and cosmetics. In 1954 the SHF had established 4 grant programs with major Universities and The Rodale Experimental Farm was beginning to attract visitors in the form of interested laypeople, American politician, and foreign scientists including Lady Eve Balfour (U.S. NPS, 1999).

In 1951, Rodale named his son Robert President of the company but continued to serve as its chair and now had more time to write and lecture on organic. In the 1960s and as Rodale Inc's many publications began to reach a larger sphere of influence, the issues associated with industrial agriculture became more prevalent in the social consciousness. This public response was partially due to the political attention environmental issues began to receive during this time period within the media. Rachel Carson wrote *Silent Spring*, a narrative which assimilated the work of many different scientists and researchers and her own work regarding the ecological/environmental effects of certain pesticides, namely the commonly used DDT. Before *Silent Spring*, the effect of biomagnifications of toxic substances was not well understood by the public. Her book was widely read and more people began to understand that chemical pesticides applied to soil and vegetables could potentially affect *them*, and definitely affected the food chain, through the effects of biomagnifications (Carson, 1962). Ultimately, *Silent*

Spring made a strong impression on people about the possible environmental impact of human actions, and at the very least it caused people to question some of the agricultural methods that had, until then, been largely taken for granted.

Partly due to this growing interest in the organic movement, Rodale's periodicals *Organic Gardening* and *Organic Farming* began to experience increased success in the 1960s. The social revolution among the youth that rose as a result of heightened awareness in environmental issues contributed greatly to the diffusion of the movement. According to Rodale, "I have worked for 30 years trying to encourage acceptance by the authorities but in a short year or two the youth of our nation have taken hold of it, and it is now seeping into unbelievable places. The word 'organic' is being heard every day on TV, radio, newspapers, and on the streets (U.S. NPS)" During this time, Rodale Inc. continued to publish books and periodicals that would support the growing organic movement and encourage gardeners around the nation to choose organic methods over mainstream chemical methods.

Following Rodale's death in 1971, the organic movement in the U.S. continued to gain momentum as many tributes and remembrances were released (US NPS, 1999). Awareness of environmental issues continued to spread which spurred on increased interest in organic. The two movements coincided, with the organic gardening and agriculture movement acting as one of the important supporting social movements aligned with environmentalism. Organic gardening offered the general public the unique opportunity to take action that could help them, personally, contribute to environmental efforts.

Summary

Sir Howard can be considered the father of modern organic agriculture for many reasons. During his lifetime, his work influenced and informed many of his peers, his research produced the first significant body of knowledge about organic farming, and his books, especially *An Agricultural Testament*, remain relevant within the contemporary organic agriculture sector. Ultimately, his message of what an organic farm should be was comprehensive and complex. His idea of organic agriculture included a system of land stewardship and livestock management that mirrors the systems of nature and incorporates methods of global cultures and past civilizations [Table 1.1]. His work will be the definitive guide for the sake of this paper, but many of his contemporaries were in agreement with his organic production methods, either directly through collaboration, or through overlapping expression of ideas within their bodies of work.

Organic agriculture is modeled after different systems of agriculture [Table 1.1]. Because it is a systems based approach, to isolate any of the methods of the organic process would result in the production method no longer being organic. All of the important methods must be honored as many of the methods affect other parts of the organic production system. For example, one objective of organic agriculture, soil fertility [Table 1.2] is dependent not only on use of organic fertilizers produced from the growth and decay process [Table 1.2] but also upon diversity and variety [Table 1.2], soil humus [Table 1.2], and livestock [Table 1.2]. If any of these production methods are altered or eliminated, organic objectives are unrealized. Certain concepts, such as the soil and health connection [table 1.1] are dependent upon all other production methods because it takes compliance with all of the principles of organic to ascertain healthy soil.

Table 1.1: Methods of Soil Maintenance

Method	Description
(A) Nature	Nature’s method of soil management is present in untouched ecosystems. Sir Howard looked at nature to help establish how soil is nourished through the grown and decay process [Table 1.2] and how other ecosystem services such as the water cycle and carbon cycle contribute to the maintenance of soil fertility.
(B) The Eastern Hemisphere	<p>Sir Howard claimed the good soil fertility seen in many countries in the Eastern hemisphere was due to their agricultural methods.</p> <p>“A balance between live stock and crops is always maintained. Although crops are generally more important than animals in Eastern agriculture, we seldom or never find crops without animals. This is because oxen are required for cultivation... (Howard, 1943)”</p> <p>“In India... It is amazing that in spite of this unfavorable factor soil fertility should have been preserved for centuries: this is because natural means have been used and not artificial manures. The crops are able to withstand the inroads of insects and fungi without a thin film of protective poison (Howard, 1943).”</p>
(C) Ancient Civilizations	<p>Sir Howard analyzed the success and failure of soil maintenance methods of different civilizations. Agricultural methods of ancient Peruvians, for example, were considered successful. “In other words, a series of huge flower pots, each provided with ample drainage below, was prepared with incredible labour by this ancient people for their crops. Such were the megalithic achievements in agriculture, beside which 'our undertakings sink into insignificance in face of what this vanished race accomplished (Howard, 1943).”</p> <p>Methods in use by the Roman Empire</p>

	during the collapse were considered unsuccessful, “These systems of agriculture, however, had to be carried on with slave labour, the supply of which had to be maintained by constant importation. Such extensive methods of farming naturally failed to supply sufficient food for the population of Italy (Howard, 1943).”
(D) Western Agriculture	Sir Howard had many issues with soil maintenance methods in use in the Western hemisphere. He disagreed with the use of pesticides, and was also critical of the physical organization of most Western farming. “Monoculture is the rule. Almost everywhere crops are grown in pure culture. Except in temporary leys, mixed crops are rare (Howard, 1943).”

Table 1.2: Organic Agriculture Concepts

Organic Concept	Meaning
(A) Diversity and variety	As in nature, no species exists in isolation. Many different species are interdependent for survival. In this way, organic agriculture attempts to preserve biodiversity present in natural systems. “In lakes, rivers, and the sea mixed farming is again the rule: a great variety of plants and animals are found living together: nowhere does one find monoculture. Land is cultivated in a way which honors and preserves regional ecological diversity (Howard, 1943).”
(B) Growth and Decay Cycle	All plant and animal waste is reused to provide vital nutrients for soil hummus. New life is nourished by the nutrients derived from decay and the cycle continues. Sir Howard’s Indore process is highly dependent on compost derived animal waste and vegetation (Howard, 1947).
(C) Soil Humus	“Viewed from the standpoint of chemistry and physics humus is therefore not a simple substance: it is made up from a group of very complex organic compounds depending on the nature of the residues

	<p>from which it is formed, on the conditions under which decomposition takes place, and on the extent to which the processes of decay have proceeded. Humus, therefore, cannot be exactly the same thing everywhere. It is bound to be a creature of circumstance. Moreover it is alive and teems with a vast range of micro-organisms which derive most of their nutriment from this substratum (Howard, 1943). “</p>
(D) The Living Soil	<p>Soil is made up of a variety of non-living components and living organisms. The living organisms include bacteria and fungi which contribute to the decay process and are responsible for providing soil with vital nutrients. The mixture of organic and inorganic compounds is collectively referred to as “the Living Soil”</p> <p>“We are dealing not with simple dead matter like a sack of sulphate of ammonia, which can be analysed and valued according to its chemical composition, but with a vast organic complex in which an important section of the farmer's invisible labour force -- the organisms which carry on the work of the soil -- is temporarily housed. Humus, therefore, involves the element of labour; in this respect also it is one of the most important factors on the farm (Howard, 1943).”</p>
(E) Soil and Health	<p>The concept that there is a connection between soil health, ecosystem health, and human health and that healthy soil produces healthy plants which make livestock who eat them healthier and in turn contribute to human health.</p>
(F) Integrated Livestock	<p>Livestock are essential for successful organic farming. The animal waste helps nourish the soil through the decay cycle. Animals also provide other ecosystem services. Thus, livestock must participate in the organic production process.</p>

Organic Agriculture Objectives

Some of the objectives of organic farming are listed in Table 1.3. These objectives illustrate the connectedness of organic farming because to successfully reach any objective it requires the application of one or more concepts from Table 1.2. For example, maintaining ecosystem diversity [Table 1.3] requires the use of integrated livestock [Table 1.2], inclusion of diversity and variety [Table 1.2], and careful attention to soil hummus [Table 1.2]. As soil humus contains its own ecosystem, the addition of artificially synthesized fertilizers will disrupt the balance of the soil humus ecosystem and possibly contribute to loss of ecosystem diversity on a larger scale.

Table 1.3: Organic Agriculture Objectives

Objective of Organic Farming	Process
(A) Maintaining ecosystem diversity	Crops are grown with natural ecological diversity, not in monoculture. Different species of vegetation and livestock are present in the organic farm. Ecosystem diversity contributes to soil fertility
(B) Preserving Soil Fertility	The process of organic farming is ultimately aimed at promoting sustainable soil fertility. The addition of artificially synthesized fertilizers is avoided in order to prevent pollution of ecosystems and long-term degradation of soil fertility. Soil fertility contributes to the Soil and Health Connection (table 1.2)
(C) Avoiding Pollution	Plant and animal waste are properly composted to supply fertilizers. No additional synthetic chemical fertilizers are added.
(D) Promoting Resiliency	Ecosystem diversity and soil fertility promote ecological resiliency. If soil is fertile and the biotas are healthy, the ecosystem is more resilient to disease and disaster.

(E) Promoting Welfare of the Population	“The most important possession of a country is its population. If this is maintained in health and vigour everything else will follow; if this is allowed to decline nothing, not even great riches, can save the country from eventual ruin. It follows, therefore, that the strongest possible support of capital must always be a prosperous and contented country-side. A working compromise between agriculture and finance should therefore have been evolved. Failure to achieve this naturally ended in the ruin of both (Howard, 1943).” Howard was critical of systems which relied on the exploitation of laborers, “
(F) Enriching Health of Ecosystem and Community	Organic practices encourage soil fertility and health, which through the soil-health connection [Table 1.2]; affect the health of everything else within the ecosystem.
(G) Community Involvement	Howard, Northampton, Balfour, and Rodale all encouraged individual and community involvement in the organic process. The effort to garner community participation was initiated in the U.K. by the former three in their lectures and activism. Rodale continued to encourage and recommended involvement in the form of organic gardening through his many publications.

The concepts and objectives outlined in Tables 1.2 and 1.3 help illustrate how the founders of the organic movement defined organic agriculture and organic production methods. Ultimately, it is important to note that the concepts are interrelated and the exclusion of one or more would undermine the others. Failure to follow the important concepts of organic agriculture would result in failure to meet objectives of organic agriculture. This passage from Sir Howard’s *An Agricultural Testament* demonstrates the interrelatedness of organic agriculture, “Soil fertility [Table 1.3] is the condition which

results from the operation of Nature's round [Table 1.1], from the orderly revolution of the wheel of life, from the adoption and faithful execution of the first principle of agriculture -- there must always be a perfect balance between the processes of growth and the processes of decay [Table 1.2]. The consequences of this condition are a living soil [Table 1.2], abundant crops of good quality, and live stock which possess the bloom of health [Table 1.2]. The key to a fertile soil [Table 1.3] and a prosperous agriculture is humus [Table 1.2] (Howard, 1943).”

Chapter 2: Defining the Organic Consumer

April 22th 1970 was the first Earth Day, an event that reflected America's growing awareness of the importance of protecting the environment. Though Jerome Irving Rodale, the man responsible for most of the United States based publications on organic agriculture would pass away a year later in 1971, the organic movement was just beginning to gain momentum. The 1970's brought about many important environmental policies including the Clean Air Act of 1967, the Clean Water Act of 1977, and the Endangered Species act of 1974. Some of the emissions, pollution, and habitat degradation addressed by these acts were the result of chemicals and land use practices of conventional, industrial agriculture. This heightened interest in environmental issues could have contributed to some of the increased popularity the organic movement began to experience at this time.

Until this time period, most of the advocates for organic agriculture focused heavily on production methods. As the movement gained popularity and momentum, an important advocate would help inform people on how they could become organic *consumers*. This was an important step in helping to further the organic movement, especially within a continually urbanizing world. Rodale, Howard, and others had provided plenty of good information for people wishing to produce organic food, but there was little guidance on how to engage in organic consumption patterns.

Alice Waters and Chez Panisse

Alice Waters is a chef, food advocate, author, and restaurateur born in Chantam Borough New Jersey in 1944 who would help shape the patterns of the organic consumer. As a junior in college, she went to France to study, and she was inspired by the local, farm-driven cuisine of the rustic French country side (Montagne, 2007). Upon returning to America, Alice Waters opened Chez Panisse in Berkeley, California in 1971. Through Chez Panisse, Waters helped introduce people in the Berkeley region to fresh, local, and organic cuisine. Waters enlightened many of her restaurant patrons to the advantages of eating locally sourced and organic foods and reached even more people with her cookbooks and through charitable works through her Chez Panisse Foundation which she founded in 1996 (Chez Panisse, 2012).

During Waters time in France the ingredient driven, farm-to-table cuisine inspired her and influenced her heavily as a chef. Waters credits the superior taste of the locally sourced, organic foods as her most important reason for preferring the organic French ingredients (Waters, 2013). After returning to the United States, she decided to open her first restaurant, Chez Panisse, in 1971 so her friends could experience the delicious, simple foods of her beloved French cuisine. In the United States she found it difficult to locate ingredients that were organically grown and fresh, noting that she had to “forage” for ingredients. This eventually compelled her to form relationships with a network of farmers in her region (Waters, 2013).

Waters possessed an affinity for fresh ingredient-driven cuisine, and sought to introduce her patrons to the joys and advantages of locally sourced, organic produce. The

Industrial Agriculture movement of the 1940s and 1950s led Americans down a path of pre-made and processed convenience food. Water's passion was to encourage people to feel reconnected with the land and enjoy the simple pleasures of food produced naturally and sourced locally. She strove to serve food that was seasonal, regional, and simple in a way that promoted the soil-health connection of the organic agriculture founders (Finz, 2010).

Water's idealistically sought to serve people food from this paradigm as well as educate them on how to source and prepare their own nutritious and organic foods. As a restaurateur, Waters sourced her produce from local farms and began to forge relationships with farmers in the area to ensure she received the best produce. One of the most prominent was Warren Weber of Star Route Farms in Bolinas, a self proclaimed "hippie farmer (Guthman, 2003)." Star Route Farms were established in 1974 and continue to carry an organic accreditation. Their website states "We continue to use the time-honored organic techniques of natural fertilizer and cover-cropping--growing humus building plants to turn back into earth--in order to enrich our soils and create healthy crops(Star Route Farms, 2013)."

Throughout the 1970s and 1980s, Waters continued to spearhead the organic movement. Chez Panisse was the definitive example of an "organic" restaurant and the talented chefs working there continued to blaze the trail of California cuisine heavily influenced by classical French faire (Temple, 2006). Alice Waters continued to spread her message and influence chefs in the Bay area and all over California. After receiving lessons from Waters, many went on to create restaurants in the image of Chez Panisse. The patrons of Chez Panisse and the restaurants in its likeness became accustomed to the

organic way of eating. The trend began to grow and as more people were exposed to the organic way of eating, the demand for organic restaurant fare increased and any restaurant that was hip in the Bay area began carrying organic salads at the very least (Guthman, 2012). The popularity the restaurant and its stylistic offshoots experienced may have further contributed to increased popularity and interest in organic agricultural products.

Edible Education

In 1996, Waters helped initiate the first “Edible Schoolyard Project” at Martin Luther King Jr. Middle School in Berkeley, California. The project was funded by the Center for Ecoliteracy and within two years, the garden director David Hawkins and the children at MLK Jr., Middle School had cleared an acre of asphalt and planted their first cover crop. Esther Cook, the kitchen director and chef at the middle school became the school yard chef within the kitchen classroom and teachers began to collaborate with Hawkins and Cook for hands-on lessons in the garden and kitchen (The Edible Schoolyard, 2013).

The program has since expanded to staff two full time administrators, five teachers, and two AmeriCorps members. In addition, it offers educational programs for teachers and the Edible Schoolyard Academy, a summer program designed to support emerging garden and kitchen programs nationwide and to strengthen resource- and information-sharing among them by providing a “five day edible education immersion (The Edible Schoolyard, 2013).” The ESY program has influenced people and groups both nationally and internationally. “Guests have included HRH Prince of Wales, California Governor Jerry Brown, multiple state senators, California’s Secretary of

Agriculture, and the U.S. Surgeon General. For the 2005 Smithsonian Folk life Festival, we brought the Edible Schoolyard to the National Mall in Washington, D.C. The site was visited by one million people (The Edible Schoolyard, 2013).”

The mission statement of the ESY program is as follows, “The mission of the Edible Schoolyard Berkeley is to teach essential life skills and support academic learning through hands-on classes in a one-acre organic garden and kitchen classroom. The Edible Schoolyard curriculum is fully integrated into the school day and teaches students how their choices about food affect their health, the environment, and their communities (The Edible Schoolyard, 2013).” The program is dedicated to providing students with an “edible education,” one which integrates organic agriculture production and consumption principles seamlessly. The ESY program has helped to further Waters’s vision of educating young people on the importance of their food choices.

In addition, Waters and her Chez Panisse Foundation teamed up with The Ecoliteracy Institute to help initiate a school lunch program that would reinvent the way school lunches are served. The MLK Jr. Cafeteria serves as the headquarters of operation, “providing 10,000 meals per day, made with wholesome, fresh, and mostly organic ingredients. Designed to engage students, the Dining Commons features on-site composting, recycling stations, and real tableware. The Dining Commons presents myriad opportunities to connect garden, kitchen, classroom, and lunchroom experiences (The Edible Schoolyard, 2013).” Through the use of on-site composting, students are learning about the entire organic agriculture system and the importance of the growth and decay process [Table 1.2].

Waters has stated that she believes food is a political thing "of, or pertaining to, all our interactions with other people" — from the family to the school, to the neighborhood, the nation, and the world (Waters, 2008)." Her efforts are beginning to garner support on a wider political scale. During the Clinton presidency, Waters reportedly urged the Clintons through letters to start an edible garden on the Whitehouse lawn. "In the one written at the end of 1995, she said: 'help us nourish our children by bringing them back across the table, where we can pass on our most humane values. Help us create a demand for sustainable agriculture.' It continued, 'Talk about it; promote it as part of the school curriculum (Burros, 1996).'" Though there may not have been much action regarding this topic by Clinton during his administration, he has since stated his support for Waters and his agreement with her message, "Alice and people like her, along with my own weight and heart problems, inspired me to take on the issue of childhood obesity," Clinton wrote in an e-mail. The former president says he met Waters while dining at her restaurant Chez Panisse - where the activist supposedly tried to talk him out of blueberry ice cream in favor of a "perfect" peach - and has read her books, 'I know how passionate Alice is about fresh foods and the importance of Americans living healthier lives, he wrote (Finz, 2010)."

During the Obama administration, the First Lady initiated her "Let's Move" campaign which includes an aspect that is reminiscent of Waters ESY program. "Michelle Obama wasted no time in planting an edible garden, some believe at the urging of Waters, on the South Lawn of the White House (Finz, 2010)." The goals of the Whitehouse Garden are consistent with the ESY goals "The plan is to have the students

stay involved in planting, tending, harvesting and cooking the presidential produce (Let's Move, 2013).”

Waters is adamant on the importance of introducing children to organic, locally sourced food from a young age. “There should be gardens in every school, and school lunch programs that serve the things the children grow themselves, supplemented by local, organically grown products. This could transform both education and agriculture (Waters, 2008).” She also feels strongly about the importance of adhering to the original organic standards “I want to know where everything comes from,” continues Waters, who buys her groceries straight from California farms. ‘I don't want to have to choose between local and organic. I want both. I don't want to live a half-good life.’(Finz, 2010)” Plans for the future include “overhauling the USDA's National School Lunch Program. She's already started lobbying for the federal agency to more than double its budget to feed America's youth (Finz, 2010)”

Involvement in Slow Foods International

Slow Foods Organizations was a movement established in Italy in response to a McDonald's that was imminently slated to be developed in an important historic district. The Slow Foods movement is concerned with preserving the cultural and historical cuisine of a place in addition to promoting ecologically sustainable agriculture. Slow Foods Organization has diffused all over Europe and the United States (Slow Foods USA, 2010). Their slogan is “Supporting Good, Clean, and Fair (Slow Foods USA, 2010)”

As Vice President of Slow Foods International, Waters can continue to promote the message of the “Delicious Revolution” in cooperation with a large, international group. Slow Foods is supportive of many of the organic movement initiatives and the mission statement on their website states “Slow Food is an idea, a way of living and a way of eating. It is part of a global, grassroots movement with thousands of members in over 150 countries, which links the pleasure of food with a commitment to community and the environment (Slow Foods USA, 2010).”

The Organic Consumer

Though many others also helped spread and advocate for the organic movement, Waters was instrumental in furthering the organic movement in the United States. Many of the current, community-oriented organic campaigns can be traced back to her or her influence. “Chris Lehane, a political consultant who has worked for Al Gore and Bill Clinton, sees Waters as “the George Washington of the movement and Northern California as the 13 colonies (Finz, 2010).” As a chef and restaurant owner, she took the end products of organic agriculture and helped complete the cycle by making them delicious and encouraging others to do the same. Waters has been heavily criticized by some for her ideology that some consider “unrealistic” but its undeniable that she helped define the organic foods movement as it evolved in the United States throughout the 1970s and 1980s and continues to work for the movement, keeping the ideals of the founders close to her central message. Waters herself does not take credit for the ideas that influenced the “food revolution” of organic. “These are not my ideas,” she continued, a bit teary-eyed. “It’s the way people have been eating for hundreds of years (Finz, 2010).”

Still, through her restaurants and her advocacy, Waters is responsible for helping define the “organic consumer” in the United States, regardless of what she set out to do. “I was never looking for organic and local,” says Waters in a video interview, “I was looking for taste and I found organic, and I found local (Waters, 2013).” She found organic at a crucial time, a time when standards needed to be established for organic consumption. As organic production has certain principles and objectives, so does organic consumption. The two aren’t mutually exclusive, and some traits of the organic consumer, as established by Waters and many other advocates that work cooperatively within the movement, include being proactive, engaged, and involved in organic production within individual means. Through her writing, interviews, advocacy, and general involvement in culinary culture and community outreach, Waters has communicated and promoted the idea that a food economy should strive to be “good, clean, and fair (Chez Panisse).”

Table 2.1 Principles of Organic Consumption

Topic	Waters
Consider the source (Nature)	“When you understand where your food comes from, you look at the world in an entirely different way. Now I see Nature not just as a source of spiritual inspiration — beautiful sunsets and purple mountains majesties — but as the source of my physical nourishment. And I've come to realize that I'm totally dependent on it, in all its beauty and richness, and that my survival depends on it (Waters, 2008).”
Shop Sustainably	“You buy from the right people; you support the right network of farmers and suppliers who care about the land and what they put in the food. If we don't preserve the natural resources, you aren't going to have a sustainable society.’ (Burros, 1996)”
Producer-Consumer relationships	Waters “treasures the work” of her

	produce-supplying farmers (Waters, 2013). She is well-known for building and sustaining relationships with local farmers, a trend that has become an important part of the local, organic movement.
Pure Food as a Right	“Food and nourishment are right at the point where human rights and the environment intersect. Everyone should have the right to wholesome, affordable food (Waters, 2008).”
Facilitating the Growth and Decay Cycle	Waters encourages generating compost from food waste. “And I see garbage in an entirely different way, too—every little scrap is something that can be turned into beautiful rich soil (Waters, 2013)”
Eating as a Political Act	“I would also say that eating is a political act, but in the way the ancient Greeks used the word "political" — not just to mean having to do with voting in an election, but to mean "of, or pertaining to, all our interactions with other people" — from the family to the school, to the neighborhood, the nation, and the world. Every single choice we make about food matters, at every level. The right choice saves the world (Waters, 2008). “

Fig. 2.1: Conceptual Flowchart of the Organic Agriculture Cycle

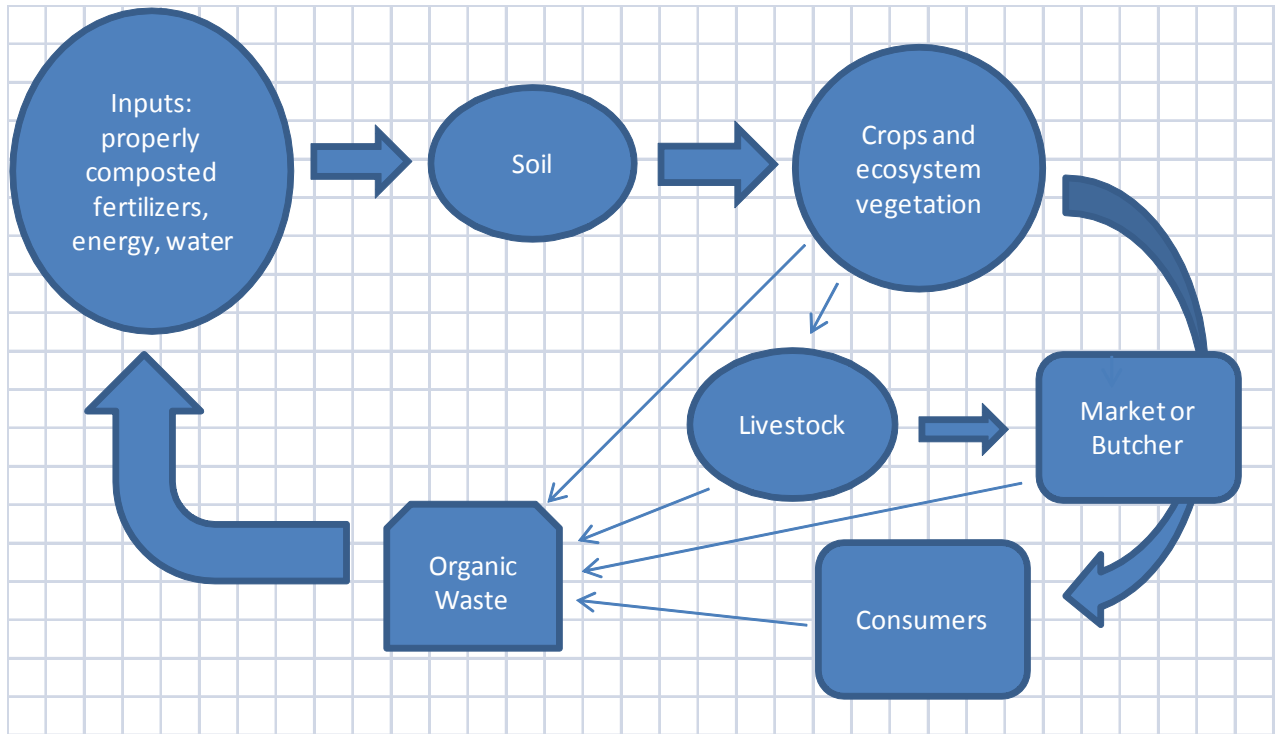


Fig 2.1 demonstrates how outputs are recycled in the form of organic waste. Thus, the organic agriculture cycle is a closed system.

Community Supported Agriculture (CSA)

The Community Supported Agriculture movement is a practical example of the type of producer-consumer organic agriculture relationship Waters promotes as ideal. Within a CSA arrangement, customers will buy shares in a farmer's crop and will be supplied, each month, with produce, dairy products, meat, and occasionally prepared food produced by their local farmer and associates. This is the literal iteration of the farm-to-table model because it delivers directly from the farm to consumers. CSA is a beneficial arrangement for the farmer and the customer as the farmer is free to work with the guarantee of financial support and the customers receive the benefits of fresh and local produce at a discounted rate of the market price (The Trustees of Reservations, 2013). CSA is a business model with demand exceeding supply in some areas of the nation. There is no official government list of CSAs at this time, but they are abundant nationally

with many in each state. “LocalHarvest has the most comprehensive directory of CSA farms, with over 4,000 listed in our grassroots database (Local Harvest, 2012).” The CSA model is the modern iteration of agriculture that is most consistent with the concepts and principles the founders of the organic movement worked to establish

Chapter III: The Rise of Industrial Organic

The organic movement received more exposure in the 1970s, and partially as a result of this social diffusion, a commercial organic sector began to develop. Price premiums on organic food products produced higher profit margins, so the sector became attractive to many farmers, especially in California where land values were high (Guthman, 2004). The outcome of more organic farms, bigger distribution, and an increased consumer base for organic products produced mixed results. On one side, the increased demand created increased production and growing awareness of some of the advantages of eating organic food. On the other hand, the natural economy of scale required to produce more organic foods faster and cheaper may have caused companies to compromise their methods of organic production.

From Organic to Industrial Organic

Earthbound Farms was one of the largest and most successful of the companies that arose from the organic produce boom of the 1970s and 1980s. Earthbound Farms was created by Myra and Drew Goodman, graduates of the University of California in Santa Cruz. They initially sold produce to Chez Panisse and other upscale restaurants serving organic menu items in the area. Then they got the idea to target more mainstream retail establishments, such as local supermarkets and grocers. Drew and Myra began bagging their salad mix to sell under the company name of Earthbound Farms. Between 1986 and 1989 they were the only company with this initiative (Guthman, 2003).

Chez Panisse and the other trendsetting restaurants caused a huge wave on the culinary scene. People first tasted and tried organic food at restaurants, but they soon desired to have an organic eating experience at home. This contributed to the growing consumer demand for organic food products.

Compounding this shift towards consumption of organic rather than regular industrial produce was the Aldicarb pesticide scare of 1986 (Guthman, 2003). Aldicarb, a highly toxic pesticide poisoned over two thousand people who ate California watermelons. Although nobody was killed, the pesticide made people who consumed the watermelons extremely ill (Cone, 2010). This may have motivated people to more closely examine their food sources and possibly contributed to the economic growth of the California organic produce sector in the 1980s. The growth in the produce sector was attractive to many commercial growers who, realizing the higher profits would help them pay high land values, began to infiltrate the organic industry while simultaneously transitioning from commodity crops like sugar beets and cotton to fresh produce. This transition drove prices down and many smaller organic farms could not compete (Guthman, 2003).

The rapid infiltration of commercial agriculture profoundly affected the organic industry. Some of the principles of organic agriculture were misinterpreted or disregarded as industrial farms sought to maximize economy of scale. This influx of larger scale producers mirrors the edging out of smaller farms from conventional agriculture that occurred during the 1940s and 1950s at the time of the Green Revolution. Whether a small farm identified as organic or not, it was difficult to compete with the giants in this industry.

Ted Koons, ex-Chez Panisse chef and self-professed organic grower founded a company called TKO which furthered the industrial organic shift. Koons had the idea to contract with other growers for different produce items in the salad mix (Guthman, 2003). This encouraged the growers who continued to claim organic status to begin producing crops in monoculture. This would increase efficiency and simplify production but was one of the first fundamental deviations from the important organic principle of diversity and variety [Table 1.2]. A true organic salad mix would have essentially all of its components produced in the same area as a requisite to use the term organic, a term which indicates adherence to the organic system. To begin separating the components and encourage growers to specialize in a certain monoculture was a one-step removal from the process.

Other organic and agro-ecological principles were abandoned in favor of a more efficient and mass market ready model. As a rule, organic had always been locally sourced. From the production end, the founders encouraged local distribution and food products free of preservatives. From the consumer end, Alice Waters supplied her restaurant with locally sourced ingredients. With the advent of the mass marketed salad mix industry, many producers began to take advantage of diverse growing seasons. This meant they could source different ingredients from different climate regions, even outside of the state (Guthman, 2003).

In addition to the ingredient specialty of growers that would lead to more intensive land management practices and monoculture cropping methods, many growers also began to use additional fertilizers in the form of soluble nitrogen called Chilean nitrogen (Guthman, 2003). The need for additional fertilizer may have been created by

the more intensive practices which did not allow for the renewal period requisite of organic agriculture. The need to use the Chilean nitrogen was a symptom of producers not adhering to the organic principles. By encouraging yields through artificial means, the organic model was broken down completely among these producers.

The end product also underwent wider distribution. Distributors such as TKO washed and vacuum packed their salad mix and as a result were able to ship it to other states and Canada. So, salad mix was no longer naturally produced with ecologically sound and low impact means. It was no longer locally sourced and distributed. Fig. 3.1 is a conceptual representation of the industrial agriculture model. The industrial model is linear and an “open” system, which means it, receives inputs from outside sources and produces waste that is not reused. This is contrasting to the original organic model which is a “closed” system or a cycle where outputs are reused as energy inputs for the system (Regents of University of Michigan, 2008).

Fig. 3.1: Conceptual Flowchart of Industrial Organic Model

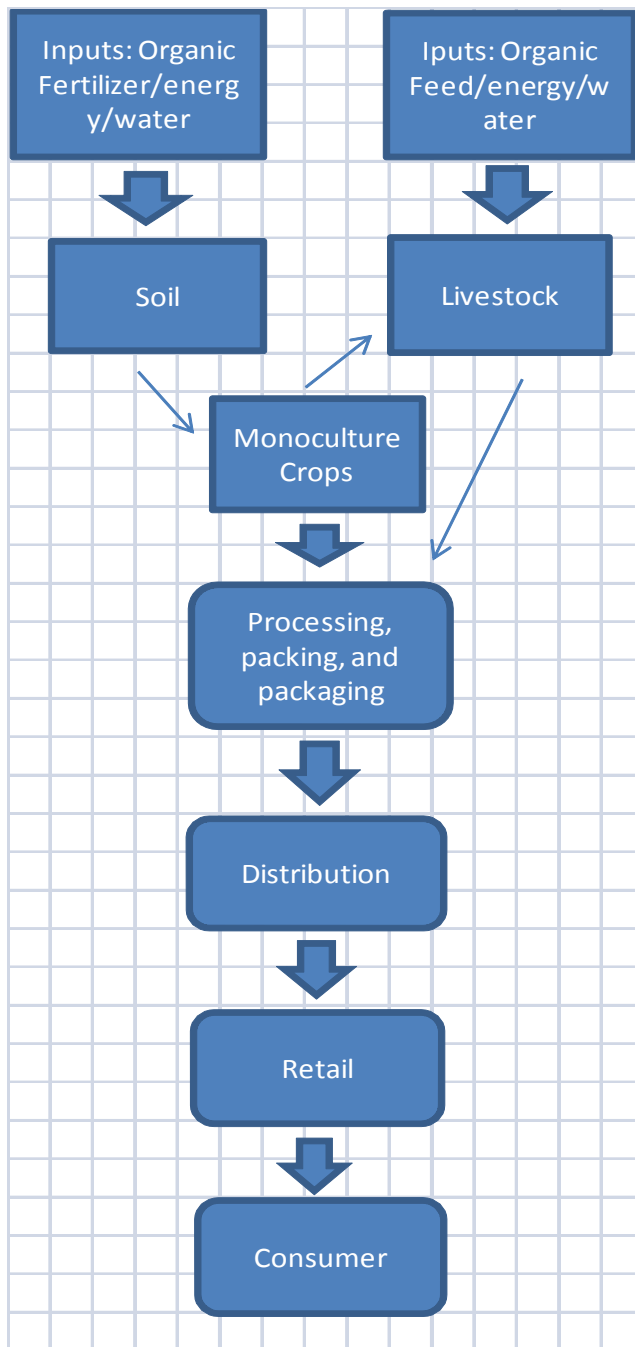


Fig. 3.1 represents the open system of Industrial Organic. The Industrial Organic system does not require the reuse of organic waste. Inputs are generally not sourced from organic waste produced on site.

Organic Industry Structure with Respect to Corporate and Commercial Ownership

Ultimately, TKO dissolved and Earthbound Farms took over. Earthbound experienced rapid growth and as of 2004, has contributed its home county San Benito, California, “containing the highest proportion of organic acreage of any county in the state (Guthman, 2004).” Earthbound was acquired by HM Capital Partners in 2009, and is no longer independently owned (HM Capital, 2009). Due to the intensive nature of this organic development area, the owners of some of these industrial organic farms are required to make difficult decisions. Though Earthbound and similar production companies were started with classical organic standards in mind, they may have to rely on production methods that are not strictly organic by the original standards. For example, they rely on the profits gained from several crops per year, so they may not be able to engage in crop rotation and cover crop every year, a process which organically revitalizes soil. They are also heavily dependent on “bug vacuums, plastic mulches, and microbial inoculants,” which are questionable methods by some of the organic ideals (Guthman, 2004).

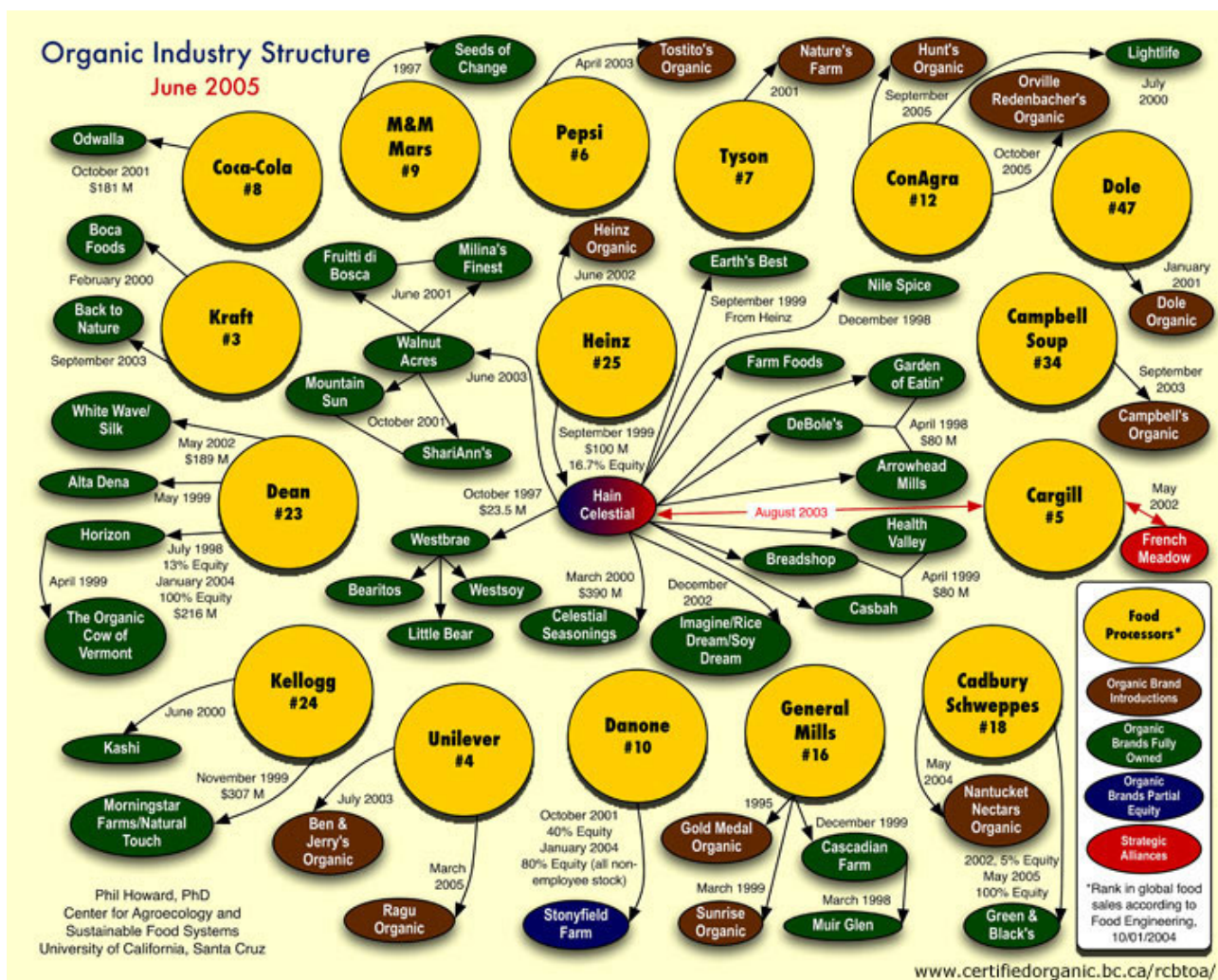
It would be inaccurate to depict industrial organic as solely the result of organic companies that started small and switched to industrial methods to accommodate economy of scale. Most of the industrial organic companies are not owned by companies that did not start out with any organic ideals. “Bear Naked, Wholesome & Hearty, Kashi: all three and more actually belong to the cereals giant Kellogg. Naked Juice? That would be PepsiCo of Pepsi and Fritos fame (Strom, 2012).” Throughout the 1980s and 1990s, acquisitions and ventures into organic by large, conventional agriculture companies have resulted in full or partial ownership of many organic companies by conventional

agriculture companies (Ganis, 2002). Most of the takeovers by conventional agriculture occurred during the 1990s, when the USDA first began the process to establish organic standards. “Between the time the Agriculture Department came up with its proposed regulations for the organic industry in 1997 and the time those rules became law in 2002, myriad small, independent organic companies — businesses like Cascadian Farm — were snapped up by corporate titans. Heinz and Hain together bought 19 organic brands (Strom, 2012).”

Though these large corporations may be fostering growth within the economic sector, the implications of the presence of these giant agribusinesses within the organic sector may undermine some of the original intentions of the organic movement. “Today five giant farms control fully one-half of the \$400 million organic produce market in California. Partly as a result, the price premium for organic crops is shrinking. This is all to the good for expanding organics’ market beyond yuppies, but it is crushing many of the small farmers for whom organic has represented a profitable niche (Pollan, 2011).”

Fig 3.2 is a representation of the ownership distribution of conventional agriculture businesses over organic companies.

Fig 3.2: Organic Industry Structure



Source: Mossback Farm, 2006

Though the farming practices of these brands must adhere to USDA certified organic standards, the certification process and standards which will be discussed in further depth in the next chapter, may facilitate the industrial organic model over the classical model, undermining the ideals and goals of the organic movement.

Conventional agribusinesses will continue to seek ownership over organic brands for as long as demand for organic products continues. This is mainly due to the “value added” aspect of organics which allow producers to charge higher premiums. “Their financial

motivation, however, is obvious. On Amazon.com, for instance, 12 six-ounce boxes of Kraft Organic Macaroni and Cheese sell for \$25.32, while a dozen 7.25-ounce boxes of the company's regular Macaroni and Cheese go for \$19.64 (Strom, 2012).

Chapter IV: Establishing Organic Standards

Federal regulatory agencies within the United States have been skeptical of organic agriculture. Organic was initially seen as a radical, backwards movement that challenged the progress of modern agriculture (Guthman, 2004). The two predominant federal agencies dealing with food and agriculture in the United States initially tried to discourage producers from advertising their products as organic. “In 1974, the FDA proposed to eliminate completely terms such as natural and organic, although it satisfied itself with regulations prohibiting labeling claims that natural and organic food was superior...The USDA, moreover, forbade any claims that livestock was organically raised, even though many states had put organic laws on the books (Guthman, 2004). “ Due to this initial aversion at the federal level, efforts to establish organic standards were largely pioneered at the state level.

In the early 1970s, around the time when the organic movement began to rapidly diffuse in California, the Rodale Institute worked to develop the first system of regulating organic agriculture. Though the underlying principles of organic agriculture were made relatively clear by the founders, the execution of these principles varied widely from farmer to farmer. The Rodales first sought to standardize the meaning behind organic production to combat fraud within the organic industry. Their simple standard required a three percent minimum of humus content in soil, which was verified through a lab test (Guthman, 2004). The certification program evolved into the California Certified Organic

Farmers (CCOF) by 1973, which was the first unified state program. It inspired similar arrangements in other states, the next being the Oregon Tilth. Eleven such programs were established by 1974 with the help of the Rodale Institute (Guthman, 2004).

The CCOF was “primarily a group of farmers, their common interest was in developing, refining, and sharing a set of production practices (Guthman, 2004). They sought to create uniform definitions of their standards in order to provide clarity to consumers and uphold organic standards among producers. Some organic distributors and marketers among them began to seek legislative support for these initiatives and the first Organic Food Act (OFA) was passed in California in 1979 (Guthman, 2004). This act helped define organic, but it did not allow any enforcement of standards, explicitly stating, “no state agency shall have any affirmative obligation to adopt regulations or otherwise enforce the provisions of the Organic Food Act of 1979 (OFA 1979, cited in Guthman, 2004).

The “great carrot caper” of 1984 was a wide scale occurrence of organic fraud that garnered enough attention within the organic community that it was brought before the media. The caper involved a vegetable distributor selling massive quantities of carrots which were purportedly organic at a time when no organic carrots were in circulation. The carrots were actually conventionally produced but were being marketed as organic. A group of organic producers and distributors took the story to the *San Jose Mercury*, publicizing the scandal in an attempt to get the state legislature to take action regarding enforcing organic standards (Guthman, 2004). By 1990, the California Organic Foods Act (COFA) was passed which included permission to enforce what the act

established as baseline definitions for organic production (Guthman, 2004) The COFA was passed the same year as the first federal act addressing organic production.

Organic Food Production Act (OFPA)

The Organic Food Production Act (OFPA) of 1990 was implemented in Title XXI of the 1990 Farm Bill. The OFPA authorized a new USDA National Organic Program (NOP) which would allow the USDA to set standards for organic production. The Act also established the National Organic Standards Board (NOSB) which would advise the Secretary of Agriculture on recommendations for the NOP. According to the OFPA, the NOSB must consist of “four farmers, two handlers/processors, one retailer, one scientist, three consumer/public-interest advocates, three environmentalists, and a certifying agent.” Additionally, “USDA appoints NOSB members.” The Organic Trade Association (OTA) reports that the NOSB bases its input to the NOP on industry consensus obtained from “unprecedented amount of public input from farmers, businesses, and consumers during every step of its decision-making process (OTA, 2011).”

Now the USDA was able to oversee the mandatory certification of organic products through the NOP. In April of 1995, the NOSB issued a list of USDA organic definitions. This list specified that organic handlers, producers, distributors, and retailers should keep in mind, “The primary goal of organic agriculture is to optimize the health and productivity of interdependent communities of soil life, plants, animals and people (USDA NOP, 2012).” This phrase encompasses many of the concepts and objectives of organic agriculture as defined by the founders of the organic movement.

National Organic Rule (NOR)

The National Organic Rule (NOR) was officially passed in October 2002 after the creation of organic standards by the USDA under the NOP. The NOR mandates that all agricultural products sold as “organic” must be in full compliance with USDA organic rules. The NOR also gave the NOP the ability to enforce organic standards and implement the NOP (USDA NOP, 2012). The reason for the twelve year delay between the OFPA and the NOR was partially due to initial struggles between the NOSB and the USDA. “The battle became quite public when the USDA released proposed standards in 1997...The so-called Big Three (allowance of genetically engineered organisms, irradiation, and sewage sludge in organic practices) galvanized the most public attention (Guthman, 2004).” This gave those skeptical about the involvement of the federal government in regulating organic more cause for concern, “For those who identified with the organic movement, the federal law represented a huge symbolic loss. It effectively asked agencies that had been most hostile to organic farming confer its legitimacy (Guthman, 2004).” Before the NOR passed, the movement to allow The Big Three was overturned.

Summary of USDA Organic Accreditation Process

The USDA Organic certification site lists all of the requirements for their accreditation process by category. The first part, code 205.100 details the type of entities subject to the accreditation process. Any who wish to label their products as “100 percent organic’, ‘organic’, or ‘made with organic ingredients’ must be certified according to the provisions.” The code explicitly states that any operation which falsely claims organic

status will be subject to penalty under this code. As a result, producers who use organic production methods must be certified by the USDA in order to include this information on their packaging or to call their products organic. The USDA NOP website states that the timeframe for the USDA NOP accreditation process can take between one and many years (USDA NOP, 2012). It is plausible that a farmer or group may have to wait many years before legally including the word organic on their label, in their advertising, or within community outreach efforts even if their methods adhere to traditional organic agriculture standards.

In order for a farmer or group to gain USDA Organic certification status, they must be certified by a certifying agency that has been accredited by the USDA. This certifying agency may be a private, public, foreign, or State entity (USDA NOP, 2012). The USDA organic program certifies cultivated crops, livestock, processed products, and wild crops which have been harvested from a non-cultivated site. There is a three year transition period for land undergoing a transition from a conventional agriculture production site to an organic site, and products may not be labeled as “organic” or until that time period has passed. Costs associated with USDA organic “vary widely depending on the certifying agent and the size, type, and complexity of your operation. Certification costs may range from a few hundred to several thousand dollars (USDA NOP, 2012).” It is essential that the producer have their organic certification status reassessed each year in order to retain organic status (USDA NOP, 2012).”

Tiers of Organic

Under the NOP, there are three different categories for organic products. The first, “100 percent organic” is reserved for products which have been verified by accredited USDA organic certifying agents as 100 percent organic by USDA standards (US GPO, 2013). Producers with products certified as 100 percent organic may indicate this on their packaging. The second, “organic” is allowed for products that are composed of more than 95 percent and less than 100 percent organic ingredients. The last, “made with organic ingredients” is allowed on products made with 70 percent or higher organic ingredients. Some requirements for the “made with organic ingredients category,” include “must contain (by weight or fluid volume, excluding water and salt) at least 70 percent organically produced ingredients which are produced and handled pursuant to requirements in subpart C of this part (US GPO, 2013).” Another category exists for products made with less than 70 percent organic ingredients, wherein producers of these products are allowed to indicate, on their packaging, the organic ingredients present in their prepared product (US GPO, 2013); therefore, it is possible that a product with the word organic listed on the packaging could be comprised of 70 percent or less organic ingredients.

The National List

Even in products labeled as 100 percent organic certain synthetic substances are allowed in the production process. The National List, which is regulated by the NOSB is available on the NOP website. Included in the list are certain substances used as herbicides, insecticides, and algacides. These include ferric phosphate (used as a snail

pesticide), other forms of phosphate, insecticidal soaps, chlorine as a disinfectant as long as it does “not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act (US GPO, 2013)” among many others. Also included are chemicals used to clean farm machinery. There is another list of substances and medications allowed in organic livestock production. These include vitamins, mineral, butorphanol (used as an animal tranquilizer) and other substances. There is also an extensive list of “nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as “organic (US GPO, 2013),” or “made with organic ingredients” Many of which include dyes and seasonings. Sherry, Marsala, whey protein concentrates, and carrot juice color are some of the items on this list. Someone wishing to amend the national list can send a petition obtained from the USDA to the NOSB. The NOSB will then evaluate the substance and may give recommendation to the secretary for addition or deletion of the substance from the National List (US, GPO, 2013).

USDA Organic Seal Represented in Retail

The original organic movement included a set of consumption patterns to complete the organic agriculture cycle. Consumption patterns that accompany industrial organic are manifest in the way retailer’s present industrial organic products and how shoppers purchase and use these products. The involvement of corporate retailers in the organic movement has shaped how people shop for industrial organic products and has been largely aided by the creation of the USDA organic label which enables consumers to identify products as organic within the retail setting.

The quintessential example of a chain retailer capitalizing on values of the organic movement is the success of Whole Foods Market. The first Whole Foods opened in 1980

in Austin Texas with a staff of 19 (Whole Foods Market, 2013). As of 2013, there are more than 340 Whole Foods in North America and the UK. Whole Foods Market admits that the majority of their growth is due to mergers and acquisitions (Whole Foods, 2013). Essentially, they proved to be the strongest and most profitable organic market, so they out-competed most locally owned and smaller chain grocers to become the king of organic supermarkets. Whole Foods pay tribute to all of their acquisitions on their website and clearly states they wouldn't be where they are today without the help of other grocers such as Wild Oats, Bread of Life, Harry's Farmers Market, Fresh Fields, Merchant of Vino, and many others (Whole Foods Market, 2013).

Whole Foods is associated with “whole (meaning unprocessed)” “organic” and “healthy” food, but also carries a variety of premade food, snack food, and conventionally produced products. Local organic produce is found next to globally and nationally sourced produce with nonorganic production methods. Issues arise when consumers mistakenly feel that everything they are buying at a Whole Foods is organic in the sense of classical organic standards. Whole Foods admits that not all of the products sold at their retail establishments comply with the classical organic standards. “We try to support local, organic growers as much as possible,” says Sarah Kenney, marketing director for the Midatlantic region of Whole Foods Markets...’Still,’ Kenney notes that ‘this is a commodity market and sometimes you run into problems of consistency and reliability and price at the local level.’ U.S.-based Whole Foods may obtain its organic produce from as far away as Chile or New Zealand (Halwell, 2013). Thus, consumers must be aware that the Whole Foods experience may not enable adherence to the organic

consumer standards without reflexive, mindful action on the part of the individual consumer.

Costco, Wal-Mart, Target, and many other large chain retailers also provide organic products, either by their own brand or by industrial organic distributors. The participation of these large retailers is significant. The proportion of organic products sold in supermarkets and chain retail establishments is growing. “In the United States, the share of organic foods sold at discount outlets, like Costco and Wal-Mart, jumped from just one percent in 1998 to thirteen percent in 1999, according to the Hartman Group, a Bellevue, Washington-based market research firm. Half of the organic food sales in the United States are now made through conventional supermarkets (Halwell, 2013). The USDA organic seal is the standard for differentiating conventional food products from organic food products. In this way, the type of organic production facilitated by USDA standards is widely represented in a growing organic consumer base.

Controversy with the NOSB

There are some allegations about the legitimacy of products allowed on the National List and their place within organic agriculture. Some parties claim that products have recently been added due to corporate interests being represented on the NOSB. “The board has 15 members, and a two-thirds majority is required to add a substance to the list. More and more, votes on adding substances break down along corporate-independent lines, with one swing vote. Six board members, for instance, voted in favor of adding ammonium nonanoate, an herbicide, to the accepted organic list in December. Those votes came from General Mills, Campbell’s Soup, Organic Valley, Whole Foods Market

and Earthbound Farms, which had two votes at the time (Strom, 2012).” This trend could have troubling implications, especially because USDA should regulate the industry, rather than the other way around.

Additionally, the appointment of certain board members has been called into question. As established, the NOSB should consist of “four farmers, two handlers/processors, one retailer, one scientist, three consumer/public-interest advocates, three environmentalists, and a certifying agent (OTA, 2011).” Incidentally, these criteria are not always met. For example, “the appointment of Ms. Beck, the national organic program manager at Driscoll’s, to a seat that is, by law, supposed to be occupied by a farmer. Officially, “farmer” means someone who “owns or operates an organic farm (Strom, 2012).” The decision to appoint her is questionable considering the availability of willing organic farmers to fill the position. “Dominic Marchese, who produces organic beef in Ohio, has tried and failed three times to win a board appointment as a farmer, ‘I don’t have anything against her,’ Mr. Marchese says, referring to 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)?’”

These are not the only questionable appointment decisions, “Similarly, the three consumer seats have never been filled by anyone from a traditional consumer advocacy group like the Organic Consumers Association or the Consumers Union. Instead, those seats have largely gone to academics with agricultural expertise and to corporate executives (Strom, 2012).” A representative from the Cornucopia Institute, an organic advocacy group points out “If you fill the slots earmarked by Congress for independent

voices with corporate voices, you greatly mitigate the safeguards built into the supermajority requirement of the law (Strom, 2012).”

Economic Growth

Perhaps as a result of intelligent corporate involvement, or perhaps as a result of natural consumer demand, or more likely due to a combination of the two, the organic sector has experienced pronounced economic growth since the implementation of USDA organic standards and the use of the USDA organic seal. If economic growth in the last few decades is any indicator, the organic sector will continue to grow in the coming years and decades.

In 1990, the organic foods industry was valued at \$1 billion. According to an Organic Trade Association survey, as of 2010, the organic foods industry was worth 26.7 billion (OTA, 2011). Growth in organic foods sales from 2009 to 2010 were 7.7%. To put this into perspective, growth in the nonorganic foods sector was less than 1% (Haumann, 2012). In 2011, sales grew by another 9.4% to reach \$29.22 billion (Smith, 2012). As of 2011 organic food sales represent 4.2% of total food sold. This number is up from 4% in 2010. Forecasts for organic food sales predict continued growth in the sector. A study at Western Washington University predicts organic food sales to reach \$42 billion by 2014 (Western Washington University, 2013).

As indicated by these growth patterns, the establishment of the USDA NOP and the implementation of the USDA seal as the consumer recognized standard for organic has coincided with, if not correlated with, increased growth in the organic sector. In turn, Big Food has continued to move into the organic sector and edge out smaller farmers and

producers. “Over the last decade, since federal organic standards have come to the fore, giant agri-food corporations like these and others — Coca-Cola, Cargill, ConAgra, General Mills, Kraft and M&M Mars among them — have gobbled up most of the nation’s organic food industry (Strom, 2012). “ Thus, the current USDA standards represent the majority of organically produced and purchased products in the United States. The USDA endorsed industrial organic model has failed to discourage the presence of agribusinesses within the organic sector. If forecasts are correct, this growth will continue in the coming years and decades.

Chapter V: Comparison of USDA Organic Standards with Classical Organic Standards

The list of USDA organic standards on the USDA NOP website include an extensive list of criteria over which a producer wishing to obtain USDA certification by an accredited USDA certifying agency will be evaluated. These lists of criteria have been established by the USDA in cooperation with the NOSB and with input from other groups and agencies including the OTA. The standards cover everything from types of seeds allowed in organic production to requirements for livestock facilities. Table 5.1 summarizes select parts of the USDA standards with related information from some of Sir Howard's publications.

Table 5.1: Comparison of USDA Organic Standards with Classical Organic Standards

Standards	Organic according to Sir Albert Howard	USDA Organic
Prohibited ingredients	“If a cheap substitute for humus exists why not use it? The answer is twofold. In the first place, chemicals can never be a substitute for humus because Nature has ordained that the soil must live ... In the second place, the use of such a substitute cannot be cheap because soil fertility -- one of the most important assets of any country -- is lost (Howard, 1947)”	Sewage sludge, synthetic fertilizers, synthetic chemical pesticides. There is a list of excluded ingredients and a growing list of nonorganic allowed substances on the National List (US GPO, 2013).
Land Requirements	Anywhere crops are grown is eligible for organic farming practices. In of <i>An Agricultural Testament</i> , Howard outlines a process by which depleted soil can be rejuvenated and made fertile for organic farming again. His methods include proper reuse of waste products. The transition period depends on the conditions of the land (Howard, 1943).	Must meet all standards, have had no prohibited substances for 3 years prior, and contain distinct buffer zones to separate adjacent land that is used for conventional agriculture (US GPO, 2013).
Soil Fertility and Crop Nutrients	“It is the condition of a soil rich in humus in which the growth processes proceed rapidly, smoothly, and efficiently. The term therefore connotes such things as abundance, high quality, and resistance to disease (Howard, 1943).”	Must maintain or improve natural resources including soil and water quality (US GPO, 2013).
Nonorganic substances used	No. Howard did refer to the importance of research and using new technology to aid organic agriculture; however, he expressed	Yes “Only the following nonorganic ally produced agricultural products may be used as ingredients in or on processed products

	<p>strong disapproval for nonorganic additives such as preservatives, fertilizers, and pesticides (Howard, 1943).</p>	<p>labeled as “organic,” only in accordance with any restrictions specified in this section, and only when the product is not commercially available in organic form.” The nonorganic ingredients allowed in processing and nonorganic ingredients allowed in substances are listed in full on the National List and amended by the NOSB through a petitioning and review process(USDA NPO, 2012) (US GPO, 2013).</p>
<p>Crop Pest, Weed, and Disease management</p>	<p>If organic principles are carefully followed, pest management should be of minimal concern. “Provided we prepare the soil for its manorial rights by suitable cultivation and subsoiling...wastes are converted into hummus in suitable heaps or pits outside the land or soil itself by the processes of sheet-composting...the crops will be able to resist the onslaught of parasites (Howard, 1947).”</p>	<p>Physical and mechanical methods which use organic materials are allowed. This includes traps, introduction of a natural predator or parasite to the pest, use of biodegradable weed killers, “flame, heat, or electrical means” application of biodegradable or nonsynthetic chemicals (USDA NPO, 2012). Some synthetic chemicals are allowed, as indicated in the National List (US GPO, 2013).</p>
<p>Livestock feed and well being</p>	<p>Livestock eats from the cultivated crops “The effect of soil fertility on live stock can be observed in the field. As animals live on crops we should naturally expect the character of the plant as regards nutrition to be passed on to stock. This is so. The effect of a fertile soil can at once be seen in the condition of the animals (Howard, 1943).”</p>	<p>Livestock is fed organic feed according to standards. Certain inorganic substances are allowed in livestock feed as outline in the National List. Hormones and antibiotics are prohibited (US GPO, 2013).</p>

Analysis

The USDA standards are itemized in order to facilitate ease of regulation whereas the classical organic model is holistic and integrated. This presents difficulty when comparing the USDA standards to the classical standards, but certain comparisons are possible. With both, there is a consideration for soil fertility, but with respect to soil fertility, Sir Howard lists “abundance, high quality, and resistance to disease (Howard, 1947).” From the USDA website, the standards are listed as anything that maintains or improves soil fertility [Table 5.1].

With respect to livestock, Sir Howard focuses on enhancing soil fertility and nutrients through organic means which will enhance the nutrition of the crops and in turn the health and well being of the livestock. The USDA standards provide a list of requirements for “organic feed [Table 5.1].” This may be in part due to the feed requirements of livestock exceeding the cultivated crops, or the entirety of the cultivated crops may have to be used as commodity to gain profit. Also, some producers may specialize in producing livestock only, a practices Howard discourages as it does not promote the principles of organic farming.

In the classical text, processing and preservatives are not considered part of the organic process, and nonorganic products are not significantly used in production or directly applied to the soil. USDA standards allow many nonorganic products in the production process. Nowhere do USDA standards specify that fertilizers should primarily be derived from composted organic waste (USDA NOP, 2012). The process of composting organic waste was essential for Sir Albert Howard’s farming methods and critical to his established Indore Process (Howard, 1943).

Sir Howard encouraged the transition of areas with soil depleted by chemical fertilizers to convert to organic in order to help replenish the soil fertility of the area (Howard, 1943). With the USDA standards, land that had been cultivated conventionally would have to undergo a necessary three year wait period before becoming certified organic [Table 5.1].

Sir Howard focused on the resiliency of organic crops to pests and parasites. He favored building resiliency of the ecosystem over pest management techniques that interfered with the natural systems. USDA organic allows many pest management techniques including those that apply certain synthetic substances. In these ways, the standards do not encourage or prefer the classical model [Fig 2.2] over the industrial model [Fig 3.1]. It would be possible for a producer to meet all of the USDA requirements while maintaining an agricultural model which looks similar to the industrial organic model [Fig. 3.1].

Chapter VI: Conclusion and Recommendations

The most important difference between the organic movement, at its essence, and the list of USDA organic requirements is that the movement embodies a very particular philosophy and the USDA standards are an itemized list of regulations. Organic agriculture is not only a production method; it is also a set of principles with a thematic organization. “Not using pesticides” is an example of an organic practice, but it is only one small piece of the larger whole of organic agriculture cycle. “At the heart of this regulated definition, moreover, has been a technical focus on production practices; where out of practical necessity, the avoidance of certain inputs and the allowance of others has become a proxy for prescribing these practices (Guthman, 2004).” The problem with this approach is that it does not uphold the organic ideals of the founders by its very nature. If some part of organic is separated and used in isolation, that intended part simply fails to be organic any longer.

Attempts to isolate and standardize organic through the USDA regulatory process have unavoidably changed the classical meaning of organic. As a result, the USDA organic standards allow certification of agricultural products that would not be considered organic by classical standards. Inadvertently, or perhaps intentionally in some cases (as with the corporate involvement on the NOSB), the USDA regulations have directly supported the industrial organic model without doing much to encourage the original ideals. Regardless, the industrial organic sector may offer some benefits to the organic movement.

Possible Benefits of an Industrial Organic Sector

Gary Hirshberg, chair, president, and CEO of Stonyfield, an organic yogurt producer based in Londonderry New Hampshire, argues in favor of industrial organic. “Organic Food is a thriving \$18 Billion a Year Business in the United States. With the likes of Wal-Mart and Target putting pressure on organic suppliers to cut prices, and with companies like Kellogg’s and Heinz joining the competition, some of my colleagues worry that we will lose our ability to charge a premium...But I welcome the trend. There is no denying that the turn towards organic products is a big plus for America’s health and our environment (Weber, 2009).” While many organic advocates are wary of the involvement of industrial organic and Big Food in the organic sector, Hirshberg says “If the good stuff becomes commoditized, and if entrepreneurs continually raise the bar by adding in extra nutrition, there will be less bad stuff on the market and less strain on the environment. And isn’t that our ultimate goal (Weber, 2009)?” Hirshberg believes that the fussy by-the-book attitude of many involved in the organic movement undermines the ultimate goal of widespread and universally available organic food. He does admit, “Anyone with enough money can buy a company, but it takes a real commitment to the core principle of organic farming and business methods to nurture it and make it work (Weber, 2009).”

Hirshberg’s claims his views retain the ideals of the organic movement but are more realistic in the face of modern America society. By his reasoning, a Wal-Mart that carries at least small fraction of organic products is better than a Wal-Mart with completely inorganic, industrial agriculture products because any instance where the concept of organic can reach increased awareness and customer base is good for the

movement in general; however, the loss of meaning in organic brought on by industrialization, corporate pressure, and USDA regulations may overshadow these benefits.

Even if the organic movement cannot directly benefit from the presence of industrial organic, the real value of the existence of industrial organic and its seemingly symbiotic relationship with USDA regulatory procedures may lie in a reinvention of the organic movement. “While deeply disappointing, this unexpected complementarity between organic regulation and industrial organic has effectively reinvigorated the movement. Particularly as producers who identify with the movement have seen their own livelihoods affected by growth and change in the organic sector, they have started to fight back (Guthman, 2004).” Efforts to fight industrialization of organic agriculture and loss of meaning behind the movement will have to be centered on a meaning-filled approach.

The Reflexive Consumer

If more people are intentionally buying organic products, aware of the USDA seal, and are thoughtfully and reflexively shopping for food, then the organic movement is progressing. “Organic usage remains strong, with three-fourths of U.S. consumers purchasing organic products, according to The Hartman Group’s “Beyond Organic and Natural 2010” report. One-third of the consumers polled indicated they buy organic products monthly, up from 22 percent in 2000 (OTA, 2011).” Regardless of individual motivations for purchasing organic foods, those who intentionally do so must believe

they are getting something different than conventional as indicated by their willingness to pay a higher price point for food certified as organic over conventional.

For the movement to continue forward in a progressive manner consumers will have to question USDA organic standards. Many contemporary food writers have communicated these ideas, and people are already beginning to realize that USDA organic may not mean what they had hoped. Michael Pollan popularized this message with his book *Omnivore's Dilemma*. "Not all of the farmers I'm buying from are certified organic. But I talk to them, see what they're up to; learn how they define the term. Sure, it's more trouble than buying organic food at the supermarket, but I'm resolved to do it anyway (Pollan, 2001)." If certain themes and important organic messages are repeated within the organic community, these messages could be easily communicated within the consumer outreach language of organic producers, somewhat simplifying the task of buying authentically organic agriculture products.

The reflexive consumer will play an important role in promoting integrity within the organic movement, but troubling barriers to organic consumption include education, price premiums, and access. Julie Guthman, food scholar and activist is concerned that the USDA organic label may hide the social inequalities present within the organic movement, "In the case of organic agriculture we must cease, at the very least, to mystify what it does and does not do. A viable politics of consumption can realistically do no less (Guthman, 2004)." One problem with the reflexive consumer model is that it fails to acknowledge the problem of social inequality with respect to access to organic and healthful foods. . It's true that organic foods can be price prohibitive, and it is not always a matter of priorities when economic inequalities are so pronounced, "it's the absence

from public discussions of acknowledgment that our food system is part of a political economy that systematically produces inequality; it's the reluctance of much of the alternative-food movement to take on the big fights, instead promulgating the notion that education will change how people eat—and thus transform the food system (Guthman, 2012).”

A Social Justice Issue

Efforts to define and standardize organic within the regulatory framework of the USDA have effectively changed the meaning of organic into something far removed from the original ideals. Many organic farmers and organic advocates recognize the paradoxical nature of the industrial organic sector, “This isn't what we meant. When we said organic, we meant local. We meant healthful. We meant being true to the ecologies of regions. We meant mutually respectful growers and eaters. We meant social justice and equality (Guthman, 2004).” This sentiment, expressed by nutrition activist, author, and farmer Joan Dye Gussow, is not shared by some of the other producers involved in the organic movement. According to Craig Wheatley of Cascadian Farms, “The Organic Production Act is an organic production act, not a social justice act, not an anti-junk act (Guthman, 2004).” Within this statement is imbedded a fundamental misunderstanding of what organic was supposed to mean.

Sir Howard heavily emphasized the importance of social justice within organic agriculture. With respect to the Roman Empire, he says, “The most important possession of a country is its population. If this is maintained in health and vigor everything else will follow; if this is allowed to decline nothing, not even great riches, can save the country

from eventual ruin. It follows, therefore, that the strongest possible support of capital must always be a prosperous and contented country-side. A working compromise between agriculture and finance should therefore have been evolved. Failure to achieve this naturally ended in the ruin of both (Howard, 1943).” In his discussion on the failings of Roman agriculture, Sir Howard indicates that a system based heavily on the exploitation of cheap and slave labor was the primary reason that soil fertility was neglected. He was highly critical of mainstream, conventional agriculture during his era. “Our industries, our trade, and our way of life generally have been based first on the exploitation of the earth’s surface and then on the oppression of one another (Howard, 1943).” He often draws connections between the exploitation of laborers and the exploitation of the environment. A system cannot be organic if it is based on exploitive or oppressive treatment of laborers.

Organic Ethics

Establishing an Organic Ethic is a simple and intuitive conclusion one can draw from the proven failure of the USDA regulatory process and the myriad paradoxes inherent within the modern movement. Due to the holistic nature of the movement, an ethical approach is a fitting way to communicate ideas and establish meaning. In fact, such an idea was suggested by Lady Eve Balfour in a speech she gave in Switzerland in 1977 to the International Federation of Organic Agriculture Movements, she championed an ethically-based approach to the organic movement, an approach she adapted from United States environmentalist Aldo Leopold’s eloquent Land Ethic.

“If I am right, this means that we cannot escape from the ethical and spiritual values of life for they are part of wholeness. To ignore them and their implications would be to

pursue another form of fragmentation. Therefore, I hold that what we have to teach is the attitude defined by Aldo Leopold as 'A Land Ethic'. This requires that we extend the concept of Community to include all the species of life with which we share the planet. We must foster a reverence for all life, even that which we are forced to control, and we must, as Leopold put it -- 'Quit thinking about decent land use as solely an economic problem, but examine each question in terms of what is ethically and aesthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise (Balfour, 1977).'

The organic movement is based around a system of ethics which considers agricultural production, land stewardship, and effects on the local and global ecosystem. An Organic Ethic would not focus on production methods, but would rather focus on ideals and philosophies that would, necessarily, encourage organically sound production methods. The most important focus of An Organic Ethic in the modern era would be to focus the issue of social equality to encourage access to safe, nutritious, and sufficient food for all people, and especially to reform the current conditions of agricultural laborers.

As far as upholding classical standards, USDA regulations may have been doomed to fail even before they were established. The reason being is that they are an itemized, fragmented list of standards as opposed to a comprehensive guide. The USDA standards separate and regulate each part of the process, making it impossible to uphold the holistic and comprehensive ideals of the founders. "There is no break in the chain from soil to man; this section of the wheel of life is uninterrupted throughout; it is also an integration; each step depends on the last. It must therefore be studied as a working whole (Howard, 1943)." Though using the classical texts to create a list of organic standards may fail for these reasons, there may be another way of synthesizing the information to create a more honest, authentic organic atmosphere in the United States.

This could be manifest in an optional or alternate step producers take in order to communicate their integrity in the organic movement to their customers. One of the remaining independent companies, Annie's Organic, already takes steps to communicate their ethics on their packaging. The Annie's Organics website has information on topics such as carbon footprint (detailing the proportion of their energy expenditure that comes from different sources including transportation, packaging, and processing) and pictures and interviews with their farmers. The website even included information on where they source their tapioca syrup in Thailand and how opportunities to become a tapioca farmer can contribute to the livelihoods of people involved in the company (Annie's Homegrown Inc., 2013). This type of information allows a company to communicate the ethics of their practices which consumers can then support by choosing to purchase from them.

As a global company, Annie's does source and distribute globally, which may challenge some of the low-input goals of organic agriculture; however, their efforts to communicate their resource use set them apart from many modern companies. The future of organic agriculture is highly dependent on the ability of organic advocates to adapt and progress past the industrial model, rather than trying to recreate an impossible past-era of agriculture. Though the USDA organic standards may not be salvaged in the near future, USDA certified companies such as Annie's can communicate their ethics to consumers through websites and messages on packaging. In a highly technological and rapidly urbanizing era, these outlets will be essential to keep producers and consumers connected.

Collaboration

When Sir Howard spoke of the atmosphere surrounding organic farming in his 1947 publication *The Soil and Health*, he optimistically stated, “The alert Americans are learning about soil fertility by doing because they have not lost that priceless pioneering quality—a willingness to dare (Howard, 1947).” He envisioned what has come to be suburbia as a multitude of homesteads, quoting American author Paul Corey, “The country within a radius of from fifty to one hundred miles of the city will become the New Frontier of America. Ten million tiny homesteads each with an acre or so of ground on which to raise a few chickens and the family’s yearly supply of fruits and vegetables will spring up...They will bring the dead land back to life again, build strength into the soil again (Howard, 1947)” Though this vision wasn’t realized quite as predicted, the “back to the land” movement motivated enough people into action to create a significant social movement within the United States.

To go beyond this movement, to apply the Organic Ethic to the modern era will necessitate a collaboration between many different groups concerned with ecology, food security, and soil fertility. Sir Howard spoke in terms of homesteads because to him suburbia presented an excellent opportunity to cultivate land and revive soil fertility. Obviously, suburbia failed to meet his predictions, but other efforts in farming have presented some interesting results.

Community Supported Agriculture (CSA) is the best example of the application of the original organic ideals in the modern era. The fact that customers will share in risks and benefits allows the farmers to have a guaranteed salary. This set up helps to ease

financial burden and leaves farmers able to practice methods which are more grounded in agro ecology. Ideally, farmers will be able to adhere to all of the organic standards such as crop rotation without having to worry as much about profit. This arrangement also helps connect consumers and producers in a way that allows consumers to know exactly how their contributions make a difference within their local food systems.

Another form of collaboration that would help progress the movement is between different scales of organic farms. Much of the rhetoric oriented at fixing the problem with industrial organic is oriented around the populist agrarian ideal of the idea of small, family operated farms. This is problematic for a few reasons. First, “conservative notions of an organic society, consistently links small-scale property with family values and traditions (Guthman, 2004).” This is problematic due to the tendencies of this view to “take as a perfectly unproblematic patriarchal exploitation of women’s and children’s labor...and ultimately upholds white privilege by ignoring the racial history of the U.S. land policy (Guthman, 2004). Second, small local farms will not be enough to meet consumer demands for organic, so an alignment between organic farms of different sizes and types will ultimately be beneficial to both producers and consumers. “While not the bulk of the sector in either grower numbers or acreage, viable midsized organic farms exist, owned by families or partnerships of unrelated individuals (Guthman, 2004).” The founders never said anything about small family farms being the best and only way to produce food. The size of a farm is not necessarily indicative of how well it does or does not adhere to an Organic Ethic.

State organizations will benefit collaborative efforts within the modern organic movement. Texas Organic Farmers and Gardeners Association (TOFGA) is a non-profit

state organization in Texas that “supports the people who produce and provide sustainable food in Texas (TOFGA, 2013). TOFGA is for producers, consumers, and resellers, and helps build and maintain connections within both the urban and rural population. TOFGA holds many events each year, including conferences, symposiums, education events, and lectures. There are also promotional events such as cheese tastings and farm tours. TOFGA is split into nice regional sections in order to service members at a local level. Organizations such as TOFGA are present in many states and can help unify and support the organic community. Such collaborations will help authentically progress the organic movement within the United States.

A Final Word

Though this paper has found a significant discrepancy between the original philosophies of the founders of the organic movement and the current representation of organic agriculture by the USDA, there are many reasons to remain optimistic. The Edible Schoolyard initiative begun by Alice Waters and supported by many people who are highly enthusiastic and energetic about the organic movement is currently reflected in the social outreach work of the Obama administration. This is evidence that authentically organic ideals are present within the national conscious.

An Organic Ethic is a natural and intuitive extension of the organic movement and could prove to be an important tool in establishing a more authentic movement in the United States. Many modern food activists, producers, consumers, and retailers are already working to achieve goals that would be in line with the Organic Ethics.

Formalizing it and making it a recognized reference for safeguarding the integrity of organic agriculture may help encourage a more authentic organic movement.

It may be tempting to reject the phrase of “organic” in favor an untainted term; however, the meaning of organic has been deeply established by people who are dedicated to ideologies behind the language. Reclaiming the word and affirming its meaning would be a worthwhile challenge for anyone supportive of the organic philosophy.

Organic agriculture, as it was defined by Sir Howard and those organic advocates that came before and after him, was more than just using “natural” products. It was an entire holistic paradigm that honored the relationship between humanity and the soil. It is the basis of every modern movement that concerns itself with the environmental and social impacts of food systems. At its heart, it is the unifying phrase that brings together all of the divergent modern food movements. The word organic carries all the weight of humanity’s long and winding history of agriculture. Organic is the triumph of harmony over domination. Organic honors the diversity and subtlety of ecosystems within the agricultural cycle. Ultimately, organic trusts and preserves the dignity of nature and looks towards natural systems as the authority on sustaining life

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