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HISTORY OF ORGANIC FARMING IN CALIFORNIA AND PENNSYLVANIA

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ABSTRACT

This thesis examines the expansion of the organic farming industry in the United States with particular attention paid to California and Pennsylvania. The concept of modern organic agriculture began with the writings of Rudolf Steiner in 1924. Steiner developed a form of more sustainable agriculture to contrast with the growing use of chemicals and machinery in conventional agriculture. The work of Steiner inspired the likes of Sir Albert Howard – known as the father of organic agriculture – whose revolutionary development of the Indore Process hastened a new generation of organic farmers. His colleague in the United States, J. I. Rodale, popularized the movement with housewives and those looking to live a healthy life. The work of these three men encouraged a niche group of farmers looking for alternatives to conventional agriculture and consumers looking for alternatives to conventional produce to convert to organic. Farmers in the western states, particularly California, transitioned to organic farming en masse, warranting the establishment of third party certifiers to police the efforts. In Pennsylvania, farmers and politicians were unable to develop a statewide definition of organic prompting confusion for consumers. The inconsistency of the states limited interstate commerce for organic products and left consumers guessing if the products lining the shelves of grocery stores were truly organic. For reasons of consumer protection, largely motivated by notorious food scares in the 1980s, national standards defining organic were established in 1990.

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Introduction

In 2004, organic food sales in the United States netted \$12 billion dollars; by 2012, that number more than doubled reaching \$28 billion. In that same time, certified organic cropland increased from 1.5 million acres to 3.1 million acres.¹ The popularity of organic food in the United States is a fairly recent phenomenon, however the history of the organic agriculture movement goes back to the early twentieth century. In the 1920s, Rudolf Steiner's developed the concept of biodynamic agriculture as a holistic approach to conventional agriculture. A decade after Steiner's work, Sir Albert Howard's work on the Indore Process led to the creation of the modern organic food movement in Western Europe.

The concept of organic farming first came to the United States through J.I. Rodale in the late 1940s. In those first years, the market for organic food was predominately made up of mothers and housewives looking to buy healthy food for their families. In the 1960s, the organic movement received national attention due to the publication of Rachel Carson's *Silent Spring*, which alerted Americans to the presence of chemicals – especially, DDT – in their food. Even with national awareness on the potential dangers of using chemicals in farming, conventional agriculture still thrived throughout the country. Since the national government did not pass legislation legally defining organic until 1990, the states took the issue into their own hands. Some states, like California, had third-party certifying agencies that made their own definition for organic and would go around the state certifying farms. Some states, like Texas, set up a certifying program through the state government. Other states, like Pennsylvania, were unable to come up with a definition for organic and so no statewide certification program existed.

¹ Greene, Catherine. "Growth Patterns in the U.S. Organic Industry." *USDA Economic Research Service*. United States Department of Agriculture, 24 Oct. 2013. Web.

The states recognized the growing necessity for a uniform label for organic food. Without a uniform label, consumers were left guessing whether what they were buying was actually organic. The lack of a uniform label also hindered interstate commerce and international sales of organic food, since there was no guarantee that certain standards were being met. Fraudulent claims and food scares in the 1980s finally garnered enough public attention to warrant national legislation in 1990. According to the Organic Foods Production Act, certified organic food must be produced without any artificial fertilizers or chemicals. In order to enforce the act, any farm or manufacturer attempting to sell organic food is subject to a certification process that begins with a three-year transition period in which the soil regains the nutrients it lost through conventional agriculture practices. Following the transition period, farmers are required to use only organic substances and those that are allowed per the National List created through the National Organic Program. Once the criteria are met, the certified products receive a USDA label as proof of certification.

The certified organic label assures consumers that the product they are purchasing meets specific standards. Labels that ensure social justice, sustainability, or the revitalization of local economies, such as certified organic, locally grown, and Fair Trade labels, are visible on many food products in grocery stores and supermarkets. This trend of American consumers considering these types of characteristics about their food is unique to the late twentieth and twenty-first century. New labels popping up every few years, though, have created a great deal of consumer confusion regarding what each label actually means. For example, since 2002, Fair Trade certification labels have appeared on certain products – such as coffee – indicating that the producers are receiving “fairer terms of trade and better prices.”² Fair Trade products are available throughout the United States and around the world, however there are many misconceptions about the products. One of these misconceptions is that Fair Trade certified

² "About FLO." *Fairtrade International*. Fairtrade Labelling Organizations International, 2011. Web.

products are also certified organic. In reality, a Fair Trade product can be certified organic, however to carry an organic label a product would still need to be subject to the certification process outlined by the USDA.

Conflating the definition of Fair Trade products with certified organic products is just one of many instances of consumer misunderstanding of the definition of organic food. Another mistaken notion about organic food is that it has to come from small-scale farms. This notion leads consumers to believe that the organic food they are buying at their local grocery stores and supermarkets comes from small farms in their area. In reality, as the organic food movement has popularized, organic products are commonly produced at large-scale farms and by large companies. The mistaken perception that all organic food comes from small farms, often leads to the belief that the organic movement has failed. The legal definition of organic, however, does not address the issue of farm size at all.

The two examples given above demonstrate consumer confusion about what a certified organic product is. Consumers, on the most part, know the basics about organic food: that it is free of chemicals and that it is higher in price than conventionally produced food. What people do not know, though, is what certified organic food is not. Certified organic food is not the same thing as “locally grown” food, “sustainably grown” food, or “natural” food. Although the labels are often mistakenly used interchangeably, certified organic food is legally defined whereas the other three labels have no legal definition. Certified organic food can be grown locally or sustainably, but it does not have to be. The purpose of my thesis, then, is to analyze how the organic food movement began, how it evolved, and what certified organic food has come to mean in 2014.

I chose organic agriculture as my thesis topic after seeing a certified organic produce section at my local Wal-Mart. Before doing my research, I – like the consumers in my earlier anecdote – believed that organic produce came from small-farms and could only be bought at

farmers' markets. This belief caused me to be baffled by the appearance of an organic section at a multinational supercenter. The Wal-Mart produce had USDA certified organic labels and I realized that I clearly had no idea what organic food was. Out of my lack of knowledge about organic food came the central topic of my thesis: what does a certified organic label mean and how did it evolve?

In conducting my research, I had three main goals. First, I wanted to determine why the organic agriculture movement happened and how it evolved over the years. Second, I wanted to determine why farmers opted to go organic and why consumers opted to buy organic. Finally, I wanted to determine why a national definition for organic was necessary. These goals led me to the discovery that well before a national standard existed, individual states had programs where farms were getting organic certification. I looked extensively at California because it is the largest producer of organic produce in the United States and Pennsylvania because of its extensive agricultural diversity. California and Pennsylvania had starkly different approaches to organic certification and labeling, but both played an active role in creating national standards.

The first chapter of my thesis is a review of important actors and trends that act as precursors to the modern organic movement. The chapter begins with a look into how conventional agriculture was changing and how farmers and scientists reacted to it. The chapter goes on to explain the popularization of the organic movement and how it gained national attention. The second chapter is a discussion of how farmers and activists in California approached organic farming. Californians pioneered the modern organic movement with visions of social justice and small-scale, sustainable farming. The chapter examines how these pioneers reacted to developments in research and law that expanded the organic movement. The third chapter is a discussion about how farmers and legislators in Pennsylvania handled organic farming. Unlike in California, the diversified nature of Pennsylvania agriculture made it difficult for a statewide consensus on organic agriculture to exist. The final chapter is an examination of

the national standard for organic food and how legally defining the term changed the movement. The chapter is a look into how influences from states like Pennsylvania and California brought about national legislation.

As my thesis will show, the story of the organic food movement is one of victories and losses. The movement went from being a niche market in 1990 to a \$28 billion dollar industry by 2012, indicating a growing and devout consumer-base. Yet, the success and popularization of the movement was disheartening to some. In the 2000s, organic agriculture was largely taken over by big business, sparking debates about the organic movement's anti-establishment origins. The emergence of these debates, among others within the organic agriculture community, brings us back to my main question: what does a certified organic label mean? Legally speaking? Produced using specific standards and without the use of chemicals.

Chapter 1

The Origins of Organic Farming

When Tom Beddard and his wife Chris bought a twenty-two acre farm in Selinsgrove, Pennsylvania in 1986 all they had was a dream of owning a family-run farm and five tillable acres. The couple started their venture into the world of farming knowing they did not want to use any pesticides or chemical fertilizers on their crops – they were going organic before organic was “in.” Their first harvest, after becoming certified in 1988, netted a profit of merely \$500. Where some farmers may have decided to switch back to the more profitable conventional farming, Beddard was not deterred by the low revenues and in the next few years his profits increased ten-fold. By the time they moved to Chambersburg, Pennsylvania in 1996 Lady Moon Farms was grossing more than \$750,000 each year.

Today Lady Moon Farms is one of the largest suppliers of organic produce on the East coast. Their three locations – Georgia, Florida, and Pennsylvania – utilize the different climates in order to grow the same crops year round. Among the many devout customers of the farm, Lady Moon Farms receives most of its revenue from its biggest customer, Whole Foods Market.³ In 2011, Whole Foods Market gave Lady Moon Farms an innovation award for being progressive thinkers and utilizing ethical business practices. The success story of Tom Beddard and Lady Moon Farms is just one of many stories highlighting the recent popularity of the organic agriculture movement in the United States. Organic agriculture, however, goes back much earlier than the 1980s.

³ Bates, Brian. "Sustainable Ag Working Group Hosts Tom Beddard." *Penn State Extension*. Penn State College of Agricultural Sciences, 11 Apr. 2011. Web. 21 Nov. 2013.

The term “organic” was first used in relation to farming by Oxford University agriculturist Lord Northbourne in his 1940 book *Look to the Land*: “the farm itself must have biological completeness; it must be a living entity, it must be a unit which has within itself a balanced organic life.”⁴ The term has been shaped and molded over the years as the market for organics has expanded. However, the same key elements – soil fertility and abstaining from pesticides and chemical fertilizers – remain constant. In 1999, the Food and Agriculture Organization of the United Nations (FAO) defined organic agriculture as: “a holistic production management system which promotes and enhances agro-ecosystem health... accomplished by using agronomic, biological, and mechanical methods, as opposed to using synthetic materials.”⁵ Less technical definitions, like the one featured on the website organic.org, simply focus on the lack of pesticides and synthetic fertilizers while still differentiating organic produce from genetically modified produce.⁶

Organic agriculture’s multitude of definitions all leave out the important changes over time that have occurring in meanings of the term organic through the movement’s history. The purpose of this chapter is to review important actors and trends that are critical precursors to the emergence of organic agriculture in the mid-twentieth century. First, the chapter begins with a discussion of the mechanization of farming and the impact of pesticides and artificial fertilizers on conventional agricultural practices. Both mechanization and biological innovation drastically changed the way farmers farmed in America and without the development of these new practices; an organic movement would not have been necessary.

Next, the three men considered to be the fathers of what would come to be called the organic movement in their respective countries – Germany, England, and the United States – are

⁴ Kristiansen, Paul, Acram M. Taji, and John P. Reganold. *Organic Agriculture: A Global Perspective* (Ithaca, NY: Comstock Pub. Associates, 2006), 3.

⁵ “Organic Agriculture FAQ.” *Food and Agriculture Organization of the United Nations: For a World Without Hunger*. FAO, 2013. Web. 21 Nov. 2013.

⁶ “Organic FAQ.” *Organic Made Easy. Life Made Better*. Organic.org, n.d. Web. 21 Nov. 2013.

analyzed to show how the movement came to be. The pioneering work of these three men in the field of agriculture revolutionized the way farmers approached farming and the way people thought about food.

The final two sections demonstrate how organic agriculture moved from a niche to a popular movement through the impact of the Green Revolution and Rachel Carson's *Silent Spring*. The Green Revolution came to be due to the fear that there would not be enough food to feed the growing population after World War II. The movement featured genetically modified seeds and a heavy commitment to artificial fertilizers and pesticides. The overwhelming use of chemicals received national attention in 1962 when Rachel Carson's *Silent Spring* was published. Carson's work brought agriculture into the home and forced people to consider the food they were feeding their families.

The Mechanization of Farming

Farming in the 19th century and before was a way of life, not a business. Farmers and their families grew food to feed themselves and sometimes to sell in order to survive. These types of farms are often associated with the implementation of livestock as tools to help farm. Throughout the 1800s, new developments in machinery – such as reapers, tractors, and threshers – made life easier for farmers and for the livestock doing the manual labor. These developments not only saved time, but also allowed for greater crop yields, as less was lost due to inability.⁷ In 1800, it was routine for one farm to be able to supply enough food for one other family. By 1870, this number increased to three other families; by 1900, five other families; by 1930, almost ten.⁸

⁷ Conkin, Paul Keith. *A Revolution down on the Farm: The Transformation of American Agriculture since 1929*. Lexington, KY: University of Kentucky, 2008, 8-15

⁸ Conkin, 2-3

Before World War I, the agricultural machines were becoming larger and larger, and extremely expensive. These machines were intended for use on large-scale, industrial farms, rather than smaller, family-operated farms. The smaller farms depended on manual labor, often with the assistance of mules, horses, or hired hands to complete tasks the newly developed machines were doing on larger farms.⁹ During the war, however, a large majority of the able-bodied men doing the work on farms were off fighting, leading equipment manufacturers to recognize a market for the development of machinery for small-scale farms.¹⁰

The labor saving capability of the new machinery, however, was not the only aspect luring farmers toward mechanization. A higher standard of living emerged in the early twentieth century – in conjunction with the growing middle class – from developments brought on by the Industrial Revolution. As people were becoming accustomed to this new lifestyle, wages were, in turn, forced to increase. With farmhands coming at high-costs, the new machinery allowed farmers to hire fewer laborers. Additionally, farmers were able to keep up with the growing demand for quality product that came with the higher standard of living through the implementation of this machinery.¹¹

Biological Innovation and the Use of Pesticides Pre-World War I

Beside the issues of manual versus machine labor, the same problems have plagued farmers for centuries: unpredictable weather conditions, infertile soil, and pests all can contribute to a smaller harvest during the growing seasons. As the weather cannot be controlled, farmers are left to deal with the tangible problems of pests and soil infertility. The methods organic farmers used to combat the latter will be addressed later in this chapter. Pests come in many forms-

⁹ Fitzgerald, Deborah Kay. *Every Farm a Factory: The Industrial Ideal in American Agriculture*. New Haven: Yale UP, 2003. 17

¹⁰ Fitzgerald, 18

¹¹ App, Frank. "The Industrialization of Agriculture." *Annals of the American Academy of Political and Social Science* 142 (1929). 231

pathogenic fungi, bacteria, insects, or weeds—and all act detrimentally to the farm’s success. Obviously, farmers do not want these pests to hinder their crop’s growth, and so biological research began searching for methods to expel them.

Farmers and scientists alike closely studied the habits of insects and diseases in crops to figure out ways to handle the problems.¹² Farmers began using strong poisons such as mercury, lead arsenate, and sulfur as pesticides to see what effect they would have.¹³ Using these poisons, although successful in expelling insects, harmed the soil and, more importantly, the consumer. Farmers and researchers continued to seek methods of controlling pests, as there were considerable returns available from any developments in that field. Not only would new biological technologies improve crop growth and quantity, thereby feeding the farmer and keeping the farm afloat, but whatever company, government agencies, or university developed the technologies would reap economic benefits as well.¹⁴

Once successful pesticides were developed in the years following World War I, they became commonplace on farms throughout the United States. The use of pesticides proved to increase crop yields and thereby increase profits, which was the goal of any farmer at the time. There was not just the appeal of a more profitable farm, but also pressure from the government and pesticide producing companies to use these newly developed products.¹⁵ It was with these products’ expansion and the seeming detriment they had on crop quality and healthfulness that sparked the beginning of the organic agriculture movement.

¹² Olmstead, Alan L., and Paul Webb. Rhode. *Creating Abundance: Biological Innovation and American Agricultural Development*. New York, NY: Cambridge UP, 2008. 14

¹³ Koepf, Herbert H., Bo D. Pettersson, and Wolfgang Schaumann. *Bio-dynamic Agriculture: An Introduction*. Spring Valley, NY: Anthroposophic, 1976. 14

¹⁴ Olmstead and Webb, 387

¹⁵ Gross, Daniel. *Our Roots Grow Deep: The Story of Rodale*. Emmaus, PA: Rodale, 2008. 62

Rudolf Steiner and Biodynamic Agriculture

The modern organic movement began in Switzerland with scientist and philosopher Rudolf Steiner. His contribution to organic agricultural development came not only from his expertise in science and philosophy, but also from his work as a spiritualist.¹⁶ In 1924, Steiner gave a series of eight lectures on his new mode of farming, titled Biodynamic Agriculture.¹⁷ His intention with the lectures was to “show how intimately the interests of Agriculture are bound up, in all directions, with the widest spheres of life.” He believed the course was necessary due to the trend of modern spiritual life negatively influencing agricultural practices.¹⁸ Biodynamic agriculture followed a holistic approach where the farm is an organism working in harmony with its habitat, its farmers, and those who consume the crops. This required a connection to the earth that Steiner believed had been lost by many.¹⁹

Biodynamic agriculture depended on the idea of the farm as a self-contained unit: any outside substance, particularly manure, was to be used solely as a remedy for “sick farms.” A healthy farm, according to Steiner, “should be able to produce within itself all that it needs.”²⁰ The concept of discounting outside or artificial manure was contrary to the popular opinion at the time as discussed in the *Biological Innovation* section previously. The livestock living on the farm, too, had to fit into the self-contained unit. This required the food, water, and pasture to originate from the farm. By doing this, the farmer was able to discover the true relation between the animals, the manure they provided, and the particular piece of earth in which they grazed.²¹ The production of manure in this way was essential to the self-contained essence of the farm and thereby the farm’s success.

¹⁶ Conkin, 185

¹⁷ Koepf, 14

¹⁸ Steiner, Rudolf. *Agriculture; a Course of Eight Lectures*. London: Bio-dynamic Agricultural Association, 1972. 8.

¹⁹ Steiner, 22.

²⁰ Steiner, 29

²¹ Steiner, 41

Biodynamic agriculture also depended on the idea that the healthfulness of the soil, plants, and animals was derived from connecting nature with “cosmic creative, shaping forces.”²² The soil, manure, and compost used in biodynamic agriculture were treated in such a way as to reanimate the natural forces around the farm. Steiner was concerned that the use of inorganic fertilizers had decreased crop quality and had interrupted the relationship with nature.²³ To integrate the farm back into nature and maintain the soils connection to planetary rhythms and cosmic laws, Steiner created a calendar to guide crop planting. The almost astrological calendar, alongside his method of treating soil, proved to be productive and is in line with future organic soil procedures.²⁴

Sir Albert Howard and the Indore Process

Working in parallel to Steiner in Germany, Sir Albert Howard is considered the father of organic agriculture in the English-speaking world. Howard attended Cambridge where he studied Natural Sciences with an emphasis on agriculture. After the completion of his degree, he spent time teaching in an agricultural college until moving to India with his wife in 1905.²⁵ In India, he developed a composting system he titled the Indore Process, after the area where the research was conducted. The work at Indore, according to Howard, accomplished two things. The first demonstrated, “the obsolete character of the present-day organization of agricultural research.”²⁶ Howard took issue with the mode of agricultural research that had been implemented in the Western world since World War I. He argued that agricultural research had “been misused to make the farmer not a better producer of food, but a more expert bandit.”²⁷ These farmers were

²² Koepf, 16

²³ Thorvaldsson, G., M. Gerzabek, O. Andrén, L. Eriksson, and M. Winninge. "Fundamentals of Organic Agriculture – Past and Present." *Organic Crop Production: Ambitions and Limitations*. By H. Kirchmann and L. Bergström. Netherlands: Springer, 2008. 13-33. 17

²⁴ Conkin, 185

²⁵ Conkin, 186

²⁶ Howard, Albert. *An Agricultural Testament*. New York & London: Oxford UP, 1943. 41

²⁷ Howard, 199

taught how to make a profit immediately without considering the long-term effects on the soil and livestock. These practices in business, he said, would lead to bankruptcy, though “in agricultural research they lead to temporary success.”²⁸

The soil depleting innovations that Howard refers to largely deal with the use of artificial fertilizers. Howard believed that “artificial manures lead inevitably to artificial nutrition, artificial food, artificial animals, and finally to artificial men and women.”²⁹ The use of the relatively cheap artificial fertilizers, though, yielded larger harvests and so created bigger profit margins for the farmer. This profit, however, disappears altogether in the eyes of Howard when measuring the cost of losing a healthy population.³⁰

After World War I, the number of large-scale farms in the US greatly increased.³¹ These farms are linked most often to the usage of artificial fertilizers. In the late 1920s, the rhetoric about these industrialized farms centered on the idea of the farm as a factory. As power farming expert Raymond Olney said in 1917, “No one will object to calling a farm a factory. It is a factory. The soil and seed are the raw materials, and from these are manufactured a variety of finished products, through the agencies of sun, air, moisture, power, and implements.”³² Howard greatly disagreed with this concept of the farm as factory, believing the term implied agriculture was a commercial enterprise based on profit. Instead, he found fresh food and fertile soil greatly outweighed the benefits of making money: “quality is more important than weight of produce.”³³

The second accomplishment of the work at Indore was the creation of a practical method of manufacturing humus.³⁴ The method involved returning as much to the soils as was taken away. This was accomplished by recycling vegetable and animal wastes, implying that a

²⁸ Howard, 199

²⁹ Howard, 37

³⁰ Howard, 38

³¹ Fitzgerald, Deborah. *Every Farm a Factory: The Industrial Ideal in American Agriculture*. New Haven: Yale UP, 2003. 107

³² Olney, Raymond. "The Farm Power House - A Factory Idea." *Power Farming* Nov. 1917: 7

³³ Howard, 198

³⁴ Howard, 41

successful farm must have a mixture of livestock and crops to maintain balanced humus.³⁵ A second principle underlying the process was managing the mass “so that the micro-organisms which do the work can function in the most effective matter.”³⁶ In India, Howard saw a consistent balance of livestock and crops that allowed for the preservation of soil fertility. The crops, then, were able to withstand insects and fungi without “a thin film of protective poison.” In the West and particularly the United States, machines had largely replaced livestock and crop rotation did not occur, diminishing the quality of the soil.³⁷

Howard’s work in India produced a series of lectures in the mid-1930s followed by the publication of his book, *An Agricultural Testament*, in 1940. By World War II, the publication was widely known in Britain and increasingly in the United States. As the war progressed, Howard became more hostile toward the direction that agriculture was headed in Britain, especially the role of agribusiness.³⁸ Howard continued to contribute to the organic movement until his death in 1947 through publications in the American magazine *Organic Gardening*, a magazine started by one of his leading American admirers.

J. I. Rodale and Organic Gardening

Jerome I. Rodale was a disciple of Sir Albert Howard’s work and the leading name of organic farming in the United States.³⁹ After reading one of Howard’s books, Rodale was inspired to open an organic farm. He moved from his home in Allentown, Pennsylvania to a farm in Emmaus, Pennsylvania in 1941. Soon after, his publishing company began printing a magazine called *Organic Farming and Gardening*, which featured articles detailing his experiences on his

³⁵ Conkin, 186

³⁶ Howard, 41

³⁷ Gross, 55

³⁸ Conkin, 186

³⁹ Conkin, 186

own farm and pieces written by prominent agriculturists such as Howard.⁴⁰ Rodale's lead article predicted: "One of these fine days the public is going to wake up and will pay for eggs, meats, vegetables, etc., according to how they were produced. A substantial premium will be paid for high quality products such as those raised by organic methods."⁴¹ This prediction, apart from being surprisingly accurate, attracted readers that were more of the backyard-gardening variety instead of established farmers who were hesitant to change their methods. Thus, it was unsurprising that soon after the first issue was published the name of the magazine was changed to *Organic Gardening* to target the key demographic.⁴²

Like Howard, Rodale feared the unknown consequences of the cost-effective, unchecked use of artificial fertilizers and pesticides: "One newspaper states that a certain spray will save the nation's farmers millions of dollars' worth of crops a year. But, I might add, it could cause the people who eat those foods tens of millions of dollars in medical and hospital costs."⁴³ Rodale articulated this thought in the mid 1940s when artificial fertilizer and pesticide use was soaring. He believed that the public had an "inalienable right" to have food that was not "poisoned", which meant that the food industry would have to find a way to make profits following an alternative path.⁴⁴

In 1945, Rodale published *Pay Dirt: Farming and Gardening with Composts* with a foreword written by Howard. The book made Rodale "Mr. Organic" in the United States and was the beginning of his association as the leader of the organic movement.⁴⁵ This role allowed Rodale to publish personal anecdotes in *Organic Gardening*, such as the implications that switching to an organic diet had on his and his family's health. This "Rodale Diet" featured foods

⁴⁰ Gross, 59

⁴¹ Gross, 60-62

⁴² Gross, 62

⁴³ Rodale, J.I. "Following Nature's Cues." *Organic Gardening* 49.1 (2002): 36. *Ebscohost*. Web.

⁴⁴ *Ibid.*

⁴⁵ Gross, 69

that could be safely consumed and were considered organic, like fish and mushrooms.⁴⁶ In 1948 Rodale wrote, “there is definite proven connection between the quality of our foods and our health” and insisted that eating organic food could be used as a preventative measure to avoid illness.⁴⁷

His healthfulness claims, echoed and enhanced after his death by his son Robert, attracted an audience of housewives. The increase in organic food sales in the late 1960s and early 1970s is largely attributed to mothers worrying about the health of their families. These mothers, as predicted by Rodale some twenty-years ago, accepted the higher food bills as a way “of lessening the poisonous chemicals in the environment.”⁴⁸ The chemicals organic consumers were looking to avoid largely came out of the work produced by the Green Revolution, which will be discussed in the next section.

Norman Borlaug and the Green Revolution

Between 1940 and 1960, the global population rose from 2.3 billion to 3 billion.⁴⁹ A major contributing factor to the population growth came from advancements in the fields of healthcare and medicine. During the war, the discovery of more uses for penicillin, in particular, prevented infection and diseases like gangrene, tetanus, and malaria.⁵⁰ The medicinal advancements spread throughout the developed world after the war, preventing many deaths and increasing life expectancy. The increasing life expectancy created a great deal of concern about how the world would be able to feed the growing population.

⁴⁶ Gross, 71

⁴⁷ Gross, 73

⁴⁸ Gross, 140

⁴⁹ "Historical Estimates of World Population" *United States Census Bureau*. US Department of Commerce, 28 Aug. 2012. Web.

⁵⁰ MacNalty, Arthur, Sir. "Advances in Preventative Medicine During the War of 1939-1945." *Nature* 4071 (1947) Nature Publishing Group. 631

As many nations were facing dire food conditions, the unexpected surge in population only added to the issue of food insecurity in the years directly after the war. In Austria, for example, British nutritionist Magnus Pyke found no scientific evidence of starvation amongst the population, leading him to believe that the rationing program in place was working adequately. However, Pyke acknowledged that if at any point the rationing program were to fail, famine and starvation would immediately follow. In the war-torn countries entirely dependent on foreign aid, this trend was common. In addition to a dependency on food rations, high levels of starvation and malnutrition ran rampant throughout these countries. Since no battles were fought there, the United States was not affected by food rationing at the same level as its Allied counterparts in Europe in the years after the war. The American ideal of seven food groups, high calorie consumption, and an abundance of food remained in the United States but were entirely absent from war-ravaged Europe and Asia.⁵¹

A global food crisis arose from the combined impact of overpopulation and food shortages. To combat this problem, the Rockefeller foundation sponsored a team of American researchers in Mexico to develop hybrid seeds, farming machines, chemical fertilizers, and more efficient farming techniques that would allow for agricultural self-sufficiency in developing countries.⁵² One of these scientists was plant pathologist Norman Borlaug. Borlaug did his undergraduate work at Iowa University and then worked in a DuPont laboratory developing a precursor to napalm.⁵³ Once chosen to work as part of the Mexican Agricultural Program (MAP), Borlaug was put in charge of the wheat division where he looked to develop a hybrid seed. The researchers in MAP were aware that their work was intended to be a prototype that could be replicated in other third-world nations. Because of this, they had to consciously discard factors

⁵¹ Hamblin, Jacob D. "The Vulnerability of Nations: Food Security in the Aftermath of World War II." *Global Environment: A Journal of History and Natural and Social Sciences* 10 (2012): 41-50. Web.

⁵² Winders, William. "Agriculture and the Changing World Economy: The US Food Regime, 1945-1990." *The Politics of Food Supply: US Agricultural Policy in the World Economy*. New Haven, Conn. [u.a.: Yale Univ., 2009. 130

⁵³ Cullather, Nick. *The Hungry World: America's Cold War Battle against Poverty in Asia*. Cambridge, MA: Harvard UP, 2010. 59

unique to certain environments. By 1950, the successes in Mexico became recognized as “a blueprint for hungry nations” and would be applied to modernization projects in Asia.⁵⁴

It was not until 1955, though, that Borlaug succeeded in creating what would soon after be referred to as “miracle seeds.” The pairing of wheat kernels with native strains, when combined with irrigation and chemical fertilizers, proved to have the potential to create increased yields and the ability to adapt to different climates and growing seasons.⁵⁵ In 1970, the seeds earned Borlaug a Noble Peace Prize for their predicted ability to gradually eliminate chronic world hunger. Borlaug saw himself not as the face of the movement, but rather as “only one of an army of hunger fighters.”⁵⁶ In his acceptance speech, Borlaug referred to the Green Revolution as “only a temporary respite,” acknowledging that the work that had been done had simply given the world a “breathing space of thirty years” to mobilize a global campaign to “the frightening power of human reproduction.”⁵⁷ Soon after his speech, rumors abounded that the miracle seeds would induce infertility. Borlaug denied these claims, responding, “If only that were true we would really merit the Nobel Peace Prize.”⁵⁸ This Malthusian attitude was advocated by others in the movement and was seen as the main barrier to combating the global hunger crisis.

Additional consequences of the Green Revolution included income disparities, unemployment, class conflict, and political backlash. Though high-yield farm technologies and seeds that increased nutritional value and quantity had been developed, the focus needed to be on the education of the public. This would involve a heavy commitment to family planning.⁵⁹ Instead, education was largely ignored and class conflicts grew exponentially with large farms adopting the new technologies and small farms and peasants struggling to afford the new foods. In addition to these problems, the miracle seeds proved to have ecological repercussions due to

⁵⁴ Cullather, 44-45

⁵⁵ Cullather, 191

⁵⁶ Cullather, 244

⁵⁷ Norman Borlaug. “Nobel Lecture: The Green Revolution, Peace, and Humanity”. *Nobelprize.org*. Nobel Media AB 2013. Web.

⁵⁸ Cullather, 245-246

⁵⁹ Anderson, David C. “A Squabble over ‘Green Revolution’” *Wall Street Journal* [New York City] 6 Oct. 1970: 22. *ProQuest Historical Newspapers*. Web.

the mass amounts of fertilizer required in order for their growth. It was predicted in 1970 that by 1985 the use of fertilizers would need to increase by 100% and pesticides by 600% in order to feed the growing population.⁶⁰ Borlaug saw no problem with the use of artificial fertilizers and was even quoted saying that if DDT or other chemical fertilizers were banned, because the crop he discovered depended on them, his life work would be wasted.⁶¹⁶² Many people, including Rachel Carson who will be featured in the next section, feared the unknown repercussions that fertilizers and pesticides could have on the population and the environment.

DDT and Silent Spring

During World War II, DDT – an organochlorine insecticide – was used en masse by the Allied forces. The Allied militaries used aerial dusting of DDT to protect the troops from typhus, an effort that proved to be highly successful; throughout the war, there were only sixty-four cases of the disease in the entire US army.⁶³ Winston Churchill called DDT an “excellent powder” in 1944, citing that it had been “fully experimented with and found to yield astonishing results,” which led to its widespread use for the remainder of the war.⁶⁴

After the war, DDT was used universally in the agricultural sector because of its persistence. It was hypothesized that its chemical composition and toxicity could last indefinitely.⁶⁵ In the years directly after the war, it was thought that DDT had no harmful effect on humans or the environment and so it was used routinely on vegetables to control pests. The pesticide had “revolutionized the field of pest control.”⁶⁶ Research found, though, that over time

⁶⁰ Paddock, William C. "How Green Is the Green Revolution?" *BioScience* 20.16 (1970): 897-902. *JSTOR*. 901

⁶¹ Cullather, 247

⁶² Later in his life, Borlaug was marked as controversial yet again for advocating for the hot-button issue of Genetically Modified Foods. More information about this is beyond the scope of this thesis, but can be found here:

<http://www.nytimes.com/2009/09/14/business/energy-environment/14borlaug.html?pagewanted=all&r=0>

⁶³ Mellanby, Kenneth. *The DDT Story*. Farnham, Surrey, UK: British Crop Protection Council, 1992. 20

⁶⁴ Mellanby, 23

⁶⁵ Mellanby, 33

⁶⁶ Mellanby, 37-38

harmful insects – such as mosquitos and locusts – were beginning to grow resistant to the chemical, while pollinating insects – like bees – were being decimated.⁶⁷⁶⁸ Its loss of the perfect pesticide reputation, however, was only the beginning of the end for DDT's use.

In 1962, Rachael Carson published *Silent Spring*, an ecological work that called for “intensive research into the effects of these poisons [chemical pesticides] on all forms of life, including man.”⁶⁹ The book was directed at the long-lasting effects of chlorinated hydrocarbon insecticides – particularly DDT – that by their nature persisted in the environment. Her purpose was not to eliminate the use of chemical insecticides, but rather to alert the public of the potential effects of their use and to build a fire under the government.⁷⁰ Carson had the support of many internationally renowned scientists with similar concerns over the overwhelming use of the chemical.

Carson's book sparked an international environmental movement and prompted conversion to the organic movement. Fear of chemicals in food was not a new concept, but the evidence laid out in *Silent Spring* had people fearing for their health. The book brought a new slue of arguments against industrial farming and served as an eye-opening look into the damage that pesticides were doing to the global environment.⁷¹ On Earth Day in 1970, approximately ten million Americans joined to protest against DDT and other pollutants. The prohibition of the substance was supported by the Nixon administration and Congress, leading to the passage of legislation banning it in 1972.⁷²

⁶⁷ Mellanby, 54

⁶⁸ Cullather, 246

⁶⁹ Graham, Frank. *Since Silent Spring*. Boston: Houghton-Mifflin, 1970. 54

⁷⁰ Graham, 79

⁷¹ Kristiansen, Paul, Acram M. Taji, and John P. Reganold. *Organic Agriculture: A Global Perspective*. Ithaca, NY: Comstock Pub. Associates, 2006. 6

⁷² Cullather, 246

Conclusion

Concerns about the impact of chemicals on food and the environment, spurred by works like *Silent Spring*, led to increased sales in organic foods throughout the following decades. By 2012, total organic food sales reached more than \$29 billion, accounting for 3.5% of total food sales in the United States.⁷³ These numbers would not have been reached without the consumer demand sparked from the work of Steiner, Howard, and Rodale and their commitment to an alternative method of farming. The popularity of the organic movement was first realized at the state level where individual states followed different paths of certifying their farmers and the organic foods being produced. The following chapters will examine the ways in which California and Pennsylvania responded to concerns from farmers and consumers about the impact of synthetic chemicals through debates about developing standards and definitions for organic agriculture.

⁷³ USDA. "Consumer Demand Drives Growth in the Organic Food Sector." *USDA Economic Research Service*. United States Department of Agriculture, 8 Feb. 2013. Web.

Chapter 2

Organic Agriculture in California, 1960-1989

In 2008, 20% of certified organic farms or ranches were located in California. The approximately 2,500 organic farms led the nation in organic sales with 36% – \$1.2 billion – of all US sales.⁷⁴ California also had the most certified organic cropland in the United States, with over 430,000 acres, which predominately produced fruits and vegetables.⁷⁵ California's dominance in the organic market is largely attributed to the rich history of the state's organic movement and the method of farming utilized by the majority of the farmers in the state. The organic movement emerged in California in the late 1960s and the first third party organic certifying agency was founded only a few years later in 1973. Early organic growers were outsiders to conventional society and had grand visions of an antiestablishment, back-to-the-land style of agriculture. The passion of these early pioneers was demonstrated through victories in legislation and research that revolutionized organic farming.

California farmers, including the hippie-esque organic farmers, tended to be single crop growers – meaning their farm only produced one crop during the growing season. Northern California farmers specialized in growing grapes and tomatoes, whereas Southern California farmers specialized in strawberries. Specialization created the ideal conditions for converting to organic farming, because only one product would require certification. Mixed growers – like those in states like Pennsylvania – were subject to funding certification for all of their products. The single crop growing practice made it much easier for organic farmers and regulators in California to come up with a statewide definition for what constituted organic. California had

⁷⁴ Laux, Marsha. "Organic Food Trends Profile." *Agricultural Marketing Resource Center*. Iowa State University, Nov. 2013. Web.

⁷⁵ OTA. "Industry Statistics and Projected Growth." *Organic Trade Association*. Organic Trade Association, 8 June 2011. Web.

passionate organic farmers and a uniform definition for organic from the 1970s, putting the state ahead of the rest of the United States in organic marketing and production.

The purpose of this chapter is to explain how organic agriculture developed and evolved in California since the 1960s. To tell this story, the first section looks at the origins of organic certification in California starting with the influence of the Rodales and ending with the formation of California Certified Organic Farmers (CCOF). California's use of independent certifying agencies, rather than governmental certifying agencies, meant that people had to willingly group together and create standards. To create statewide standards, members of CCOF were actively involved in landmark organic legislation throughout the 1970s and 1980s. The following section analyzes the first organic legislation passed in California: the California Organic Foods Act in 1979. The most significant element of this legislation was that it did not mandate any state involvement, which meant the act had no enforcement power. Without enforcement power, fraudulent claims plagued the organic market in California for the following decade.

The third section consists of two oral interviews of founding members of CCOF. These interviews are essential to the story of the California organic movement because they demonstrate how CCOF worked from an insider's perspective and show how the organization evolved over time. The existence of these interviews, on their own, is also significant to the story of California's organic movement. UC Santa Cruz's initiative to ensure that people have access to the history of sustainable farming in Central California confirms the significance of organic farming in the state overall.

The following sections move away from state and certifying agencies definitions of organic and toward programs and initiatives that strive to promote organic agriculture as a means of sustaining local economies, promoting social justice, and caring for the land. Community Alliance of Family Farmers (CAFF) worked endlessly to promote organic and sustainable agriculture and through this work, the organization was able to fund groundbreaking research in

the field of organic agriculture. In addition to their contributions to research, CAFF was also instrumental in creating a Community Shared Agriculture (CSA) program in California. CSAs became the most convenient way for consumers to be linked with farmers. Through the programs, consumers could choose which type of farm they wanted to be a part of – organic, conventional, or otherwise – and could trust that the products they were buying met certain standards.

The next section tells the story of a CSA farmer, Andy Griffin, and describes his experience with organic certification. His experience as a lifelong organic farmer who became disheartened by the path organic certification had taken reflects the feelings of many other back-to-the-lander organic farmers in California. The final section of the chapter greatly contrasts with the story of Andy Griffin. Lundberg Family Farms represents the big business end of the organic food movement in California. The Lundbergs, like most certified organic California farmers, only grew one crop: rice. Unlike most other certified organic farmers, though, the Lundberg Family Farms' sales were \$50 million a year. Although the Lundbergs were dedicated to promoting sustainability, the use of Internet sales and nationwide distribution is contrary to the antiestablishment and promotion of local economies mission that the California organic movement was built upon.

Origins of California Organic Certification

In the late 1960s, when an identifiable organic movement emerged in California it did not pose a threat to conventional agriculture.⁷⁶ The earliest organic growers in California referred to themselves as “back-to-the-landers” and were cultural and political outliers.⁷⁷ These farmers tended to be isolated from the land that conventional farmers occupied. They farmed in small

⁷⁶ Guthman, Julie. *Agrarian Dreams: The Paradox of Organic Farming in California*. Berkeley: University of California, 2004. Print. pg. 110

⁷⁷ *Ibid.* pg. 90

valleys or hillsides where the isolation greatly helped manage pests. The origins of organic agriculture in California, then, are largely rooted in antiestablishment values. The term “organically grown” had not been defined by the early 1970s, and so organic growers developed loose associations, that would eventually lead to certifying agencies, as means of consumer and grower protection.

The Pennsylvania-based Rodales developed the earliest certifying program, which was created in response to the lax regulations and fear of fraud in the market. The criterion adopted by the Rodales for organic certification was “a 3 percent minimum humus in the soil, verifiable by an independent lab test.”⁷⁸ Most of the farmers that partook in the Rodale program were back-to-the-landers based in California, which led to the development of California Certified Organic Farmers (CCOF) in 1973 in Santa Cruz. The mission of the newly developed certifying agency was “to certify, educate, advocate, and promote organic.”⁷⁹ In the beginning, CCOF had 54, predominantly farmer, members who agreed on specific standards and had their own method of enforcing them.⁸⁰

In order to be certified by the CCOF farmers had to meet three requirements. First, they could not use any synthetic chemicals. Synthetic chemicals would include artificial fertilizers, insecticides, and herbicides, which were commonly used on conventional farms. Second, a long-term program of soil management was required. The purpose of this program was to enhance biological activity while minimizing the use of nutrient soluble modifications. Finally, the farmer or manufacturer had to commit to a certification process. This process included recordkeeping, laboratory testing, inspections, and a one-year probation period. The purpose of the single year probation was to allow the remaining chemical residues in the soil to dissipate to some degree.⁸¹

⁷⁸ Ibid. pg. 112

⁷⁹ CCOF. "Our Mission & Principles." *California Certified Organic Farmers*. CCOF Foundation, 2012. Web.

⁸⁰ Adams, Rachel. "California Certified Organic Farmers." *Green Food: An A-to-Z Guide* (2011): 61-63. *Gale Virtual Reference Library*. Web. pg. 63

⁸¹ Hall, Darwin C., Brian P. Baker, Jacques Franco, and Desmond A. Jolly. "Organic Food and Sustainable Agriculture." *Contemporary Economic Policy* 7.4 (1989): 47-72. *Wiley Online Library*. Web. pg. 53

Many growers perceived the deceptively simple three-step requirements to certification as overly bureaucratic. The certification process would take several months due to the amount of time in between steps. For example, once the initial inspection was conducted by the CCOF, the farmer had to wait until a local chapter could review the inspection before any of his land could be certified. In addition to the amount of time certification took, growers also complained about how expensive and burdensome the process was – citing the amount of paperwork and lengthy committee meeting debates.⁸² The peer review system – since the members of CCOF were all organic growers – had many farmers applying for certification worried about potential misconduct “in the context of industry competition.”⁸³

Mixed growers particularly despised the “perceived puritanism” of CCOF. They believed that the organization was run by “hippies, theologians, and philosophers’ and to add insult to injury, ‘by gardeners, not farmers.’”⁸⁴ The hippie-culture of the members of CCOF created a barrier between them and the mixed grower population. The mixed growers found it hard to take the inspections or the inspectors seriously when they came to the farm toting tie-dye shirts and ponytails.⁸⁵

Despite tensions among growers and CCOF, the agency became the largest certifier of organic agriculture in California. Their role in the community moved beyond being a certifying agency and toward popularizing the organic movement. The organization became a key player in helping develop legislation and regulation for organic farming, including constructing a statewide definition for organic. The first major legislation to be passed largely due to the advocacy of the CCOF was the California Organic Foods Act (COFA) in 1979.

⁸² Guthman, pg. 133

⁸³ Ibid. pg. 132

⁸⁴ Ibid. pg. 134

⁸⁵ Ibid.

California Organic Foods Act

The California Organic Foods Act, drafted by members of CCOF, legally defined organic practices.⁸⁶ The law was the first of its kind in the country and distinguished California as the “place where regulations for organic production first evolved.”⁸⁷ These defined practices mirrored the standards and requirements that CCOF had been using since its creation in 1973. The act did not mandate the involvement of the state with organic food production or certification. Because of this, consumers were still dependent on the work of third-party certifying agencies, like CCOF, to regulate the organic food market. Since the government was not involved in the certification process, though, they were additionally not responsible for preventing fraud in the market or enforcing the provisions of the act.⁸⁸

COFA’s lack of enforcement power allowed for a market saturated with fraud to exist over the following decade. Farmers and distributors could attach an organic label to their products regardless of their certification status, and with the premium price afforded to organic products, the deception was a moneymaker. One of the most notorious cases of fraud, dubbed by the Los Angeles Times in an article published in May 1988, as the “Great Rainbow Organic Carrot Caper,” was exposed by the CCOF itself as a means of embarrassing the state for its lack of enforcement in the organic market.⁸⁹

The Great Rainbow Organic Carrot Caper involved CCOF member Claris Ritter and a surprise visit to Pacific Organics, an organic producer distributor based in Los Angeles. Upon Ritter’s unannounced arrival at the distributor, she saw that conventionally grown carrots were “being taken out of their original shipping bags and repacked into Pacific Organic’ packing

⁸⁶ "Timeline: Cultivating a Movement, An Oral History Series on Organic Farming and Sustainable Agriculture on California's Central Coast." *University of California Santa Cruz Library*. University of California Santa Cruz, 2013. Web.

⁸⁷ Guthman, pg. 17

⁸⁸ Guthman, pg. 113

⁸⁹ Guthman, pg. 113

containers and being promoted as organic.”⁹⁰ She reported her findings to her bosses at CCOF who elected to make the news public even though it explicitly called attention to the fraud in the organic market. The risk of hurting organic food sales by calling attention to the fraud in the market, though, was eliminated by the Aldicarb and Alar scares of the late 1980s, which will be discussed at length in chapter 5.

Even without enforcement power, COFA was remarkably successful. By 1987, CCOF had 213 members, a 33% increase from its creation in 1973, and there were approximately 900 farmers of organic products operating in California.⁹¹ The wholesale value for the organic produce market in California in 1987 reached nearly \$70 million.⁹² By 1988, the number of growers expanded to nearly 1500, with sales approaching \$100 million.⁹³ Due to its success in helping to expand the California organic food market, it is unsurprising that the framework of COFA largely influenced the Organic Foods Production Act of 1990, which created national standards for organic food labeling, production, and distribution.

Founders of California Certified Organic Farmers

In 1963, UC Santa Cruz began the Regional History Project, which is dedicated to taking oral interviews of long-term residents of the Central California Coast and publishing them in the University Library and online. One of the oral history projects, titled *Cultivating a Movement: Organic & Sustainable Farming*, focuses on farmers, activists, retailers, and other important actors in sustainable and organic agriculture. The interviews give a unique perspective on the development of the organic farming movement and CCOF. The following section is a small

⁹⁰ Gorman, Tom. "Dubious Roots Down-to-Earth Battle Pits Slender, Market Carrots Against Stubby, Organic Ones." *LA Times* 13 May 1988, Metro sec.: 2. *ProQuest*. Web.

⁹¹ Guthman, pg. 25; Hall, Darwin C., Brian P. Baker, Jacques Franco, and Desmond A. Jolly. "Organic Food and Sustainable Agriculture." *Contemporary Economic Policy* 7.4 (1989). *Wiley Online Library*. Web. pg. 48

⁹² Hall, Baker, Franco, Jolly, pg. 61

⁹³ Cook, Roberta. "Directory of Organic Producer Information and Analysis of the Current Organic Marketplace." *SAREP Funded Projects Database*. Sustainable Agriculture Research and Education Program, n.d. Web.

sample of the interviews of members of CCOF that are part of the Cultivating a Movement Project.⁹⁴ These two interviews show how CCOF came to be and how some members – including a founding member – became disenchanted with the organization. The opinions about the divergent path the CCOF mission had taken echo the larger picture of how some farmers and activists felt about the consequences of national legislation, which will be discussed in more detail in chapter 5.

Janet Brians was a pioneer of the organic movement in California and one of the founding members of CCOF. Brians recalled that in the early years of CCOF it was simple a group of “like-minded people who also were passionate about building the soil.” In the beginning, CCOF sent out newsletters and met monthly to discuss different organic farming practices. Brians, who farmed sustainably in an area where most farmed conventionally, found it “wonderful to meet people with the same philosophy, who weren’t just saying, ‘How big a crop can I get by putting more chemicals on my land?’” CCOF also went around as a group to “poke their noses into everything” to ensure that other organic farmers were using the right practices. Brians served as president of CCOF for a year in the 1970s, but her son, Grant, was much more active in the organization. He actively worked on COFA, and later on the California Organic Foods Act of 1990.

Brians claimed that in the beginning she felt that she and the rest of CCOF were outcasts – referring to herself as a “hippie” and as “weird.” She did not think that organic farming would ever become popular outside of people similar to her. She was “flabbergasted” by how much the demand for organic food grew in the 1980s. She was especially shocked by the amount of large corporations that had begun undergoing the certification process in order to secure organic

⁹⁴ If you are interested in finding out more about the Regional History Project or in reading other interviews they are available at: <http://library.ucsc.edu/reg-hist/cultiv/role>

prices.⁹⁵

Brians is the epitome of the image of a California organic farmer. She was a self-defined hippie who went into organic farming because she loved the earth and did not care about making money. Her approach to organic farming did not change over the years and the majority of her distribution was through farmers markets. Brians was most passionate about maintaining soil quality throughout her life, meaning she never changed her back-to-the-lander attitude. She even stated at the end of the interview that the most rewarding thing to her about being an organic farmer was when she had the chance to look at her farm on a clear day and realize that she was doing what she loved in a beautiful place.

Russel Wolter was another founding members of CCOF and a pioneer of the organic movement in California. His farm, Down to Earth Farm, was one of the first farms to be certified in the state of California through the Rodale Program. Wolter was approached directly by a member of Rodale Press and asked to join the program. He recalled getting the seal from the Rodales that read, "Organic farmer certified by Organic Gardening and Farming Magazine" and "Certified by California Certified Organic Farmer" – even though the certification took place before the CCOF was founded. Rodale was encouraging Wolter to start an independent certifying agency in California in order to spread organic agriculture throughout the state. Wolter became the first president of CCOF, but, ironically, was decertified by the organization in the 1970s because he refused to pay the required dues – one half of one percent of gross payment.⁹⁶

Wolter, in contrast to Brians, did not have favorable memories of CCOF. In his interview, he hardly talks about the first years of the organization, even though he was the first president. He did, on the other hand, talk about how the certification process changed. When he tells the story about being decertified, he takes a shot at other certified organic farmers for using sodium nitrate

⁹⁵ "Janet Brians and Grant Brians: Brians Ranch, Hollister, California." Interview by Ellen Farmer. *Regional History Project - University Library*. University of California Santa Cruz, 2010. Web.

⁹⁶ "Russel and Karen Wolter: Down to Earth Farm." Interview by Ellen Farmer. *Regional History Project - University Library*. University of California Santa Cruz, 2010. Web.

– a naturally occurring substance used as fertilizer – because it caused soil degradation. Had he still been certified after the National List of Approved and Prohibited Substances was established, he would have been even more disenchanted with organic certification.

Wolter's dissatisfaction with the certification process was enhanced years after he was decertified by CCOF when he had a certifying agent come inspect his farm. Since he followed the same practices that he used when he was certified, Wolter was convinced that he would pass with flying colors. Instead, the certifier almost did not pass Down to Earth Farm because the raw manure he used was not covered, which could potentially allow for the spread of bacteria or E. coli. The certifier let Wolter know that in order to compost to organic standards he would have to buy a \$30,000 composter. Wolter admitted that he would not buy something so expensive and recognized that if he attempted to be certified today he would not pass.

Community Alliance with Family Farmers

The Santa Cruz based CCOF and its members were not the only group of people advocating organic farming in California. Almost a decade after the founding of CCOF, graduates of UC Davis formed the California Action Project (CAN). The purpose of the project was to “promote organic and sustainable agriculture.”⁹⁷ CAN later changed its mission to a focus on fostering family-scale agriculture – in both urban and rural areas – that cares for the land, promotes social justice, and sustains local economies.⁹⁸ With its mission changed, CAN also changed its name to Community Alliance with Family Farmers (CAFF). CAFF's first initiative was advocating for the federal Sustainable Agriculture Research and Education bill.

⁹⁷ Guthman, pg. 16

⁹⁸ CAFF. "About CAFF." *Community Alliance with Family Famers*. Community Alliance with Family Famers, 09 June 2013. Web.

In 1988, the College of Agricultural and Environmental Science at UC Davis, sponsored by congressional appropriations and the help of CAFF, established the California branch of SAREP. The goal of the program was to support new research concerning sustainable agricultural systems. The program focused on six different systems, including: one focused on soil quality, one with a focus on conserving soil, water, energy, and natural resources, and one that increased employment opportunities in agriculture.⁹⁹ The program was dedicated to “expanding and disseminating technical knowledge on ecological methods, as well as promoting socially responsible practices and policies.”¹⁰⁰ In 1988, the program funded 19 projects – six of which explicitly targeted organic production – providing \$250,000 in support.¹⁰¹ Although sometimes critiqued for lack of radicalism, UC-SAREP still brought in growers who otherwise would not have gone organic.¹⁰²

In addition to CAFF’s influence in forming UC-SAREP, some of the members also pioneered subscription farming, a version of community supported agriculture (CSA), in 1989.¹⁰³ CSA “consists of a community of individuals who pledge support to a farm operation so that the farmland becomes, either legally or spiritually, the community’s farm, with the growers and consumers providing mutual support and sharing the risks and benefits of food production.”¹⁰⁴ The reciprocally beneficial system works like this: the member of the farm – known as a “shareholder” – pledges to cover the anticipated costs of farm operations and the salary of the farmer and in return receives a portion of the farmer’s harvest throughout the growing season.

⁹⁹ USDA. "Sustainable Agriculture Research and Education." *Catalog of Federal Domestic Assistance*. CDFA, 2012. Web. 18 Mar. 2014.

¹⁰⁰ Guthman, pg. 17

¹⁰¹ Hall, Baker, Franco, Jolly, pg. 54

¹⁰² Ibid, pg. 180

¹⁰³ Guthman, pg. 17

¹⁰⁴ DeMuth, Suzanne. "Defining Community Supported Agriculture." *Community Supported Agriculture (CSA): An Annotated Bibliography and Resource Guide*. Beltsville, MD: National Agricultural Library, 1993. N. pag. *Alternative Farming Systems Information Center*. USDA, 28 May 2009. Web.

Through this system, the customer gets to feel like a part of the farm and the farmer is largely relieved of the burden of marketing his products.¹⁰⁵

A leading advocate of CSA, Robyn Van En, stated that the main goal of CSA projects was “to develop participating farms to their highest ecologic potential and to develop a network that will encourage and allow other farms to become involved.”¹⁰⁶ CSA farmers typically farmed using organic or biodynamic practices and its members tended to be likeminded in their commitment to more sustainable agricultural practices. Shareholders expect a variety of foods to be produced during the growing season as a means of rewarding their commitment to the farm.¹⁰⁷

The arrangements in subscription farming, unlike CSAs, tend to “emphasize the economic benefit” rather than “the concept of community building.”¹⁰⁸ Members of subscription farms agree in advance to buy a set amount of produce at a fixed price, but have no investment in the farm itself. The members received a weekly box of produce, which they had paid for in advance. The lack of investment in the farm protects the customer from taking a loss if the farmer has a poor growing season. Subscription farms, replacing the role of certified farmers markets in some cases, became the California model for “directly linking farms with consumers.”¹⁰⁹

A Community Supported Agriculture Farmer

Andy Griffin was a lifelong organic farmer who recognized the importance of organic certification from the beginning. Every farm he worked on in the 1970s and 1980s was certified by CCOF. Griffin lost faith in the certification process, because he believed CCOF did not have the interests of smaller farmers in mind. He referred to CCOF as a “lobbying organization” that

¹⁰⁵ Ibid.

¹⁰⁶ En, Robyn Van. *Basic Formula to Create Community Supported Agriculture*. Great Barrington, MA, USA: R. Van En, 1992. Print. pg. 57

¹⁰⁷ Guthman, pg. 185

¹⁰⁸ DeMuth, *Defining Community Supported Agriculture*

¹⁰⁹ Guthman, pg. 17

took money from “the small farms that built the organic farming movement and then created rules that fast-lined, streamlined the introduction in the market of the very biggest corporate farms.”

Griffin did not claim that big business had no place in the organic market, just that he would not have put his money into lobbying for them to succeed.

The seal, to Griffin, did not mean anything anymore. He believed that the domination in the market by a few large chains made it more economically viable to be a small farmer than to be a small, certified organic farmer. Since he held the belief that being certified would not be lucrative, Griffin dedicated his farming career to building relationships with customers, because, “you’re going to get the sale because you’ve got a personal relationship.” His vision of farming was not organic versus conventional: it was big versus small, and he repositioned himself as small. It is unsurprising then, that Griffin was so open to the idea of CSA. His first year at Happy Boy Farms the farm lost money and so when approached by a woman named Wendy Banzhaf with the foreign, to Griffin, idea of doing a CSA, the farmers were on board. The variety of crops produced on the farm made it an ideal CSA farm. However, there just was not enough community support for the farm to make any profit.

A few years later, Griffin and his wife Julie tried to do CSA again, and this time with more success. Griffin realized he had to find a way to reach out to the diverse community he lived in. Marketing the CSA at first was difficult for Griffin because people believed that the pay-in-advanced model targeted the rich, “But truly rich people don’t cook.” What Griffin realized was that he needed to target people who like to cook and who cook a lot. For Griffin’s community, this meant stay-at-home moms. Even though the CSA was predominately moms, Griffin said that the customers came from all sorts of income levels. What his customers had in common, though,

was education level. The majority of his customers had some sort of higher education and invested in the farm no matter what income bracket.¹¹⁰

Griffin's experience with organic farming and transition to being a CSA farmer is demonstrative of the larger vision that many people in California had. Griffin did not like the invasion of big business into the organic food market, and believed that consumers would not like the idea of buying certified organic food that came from places other than small, local farms. He committed his farming career to selling crops within his community, even though the products were not certified organic. He wanted to distance himself from a movement that he believed was "not the next big story" and that was going to lose the interest of the public once the federal government sucked "all the blood out of" it. The organic farming family featured in the next section represents the part of the organic industry that Griffin despised most: big business.

Lundberg Family Farms

To escape the Dust Bowl, Nebraska farmer Albert Lundberg and his wife, Frances, moved to the Sacramento Valley in 1937. Lundberg had seen first-hand what conventional agricultural practices and poor soil management could lead to, and so on his new farm he committed to utilizing agricultural practices that cared for the soil. His long-sighted farming techniques led Lundberg to become the pioneer for organic rice growing in the United States.¹¹¹ Until the 1960s, the Lundbergs and their four sons grew rice and sold it at local co-ops. When the organic movement began to popularize in California, the Lundbergs opted to become a part of

¹¹⁰ "Andy Griffin: Mariquita Farm." Interview by Sarah Rabkin. *Regional History Project - University Library*. University of California Santa Cruz, 2010. Web.

¹¹¹ "Our Family." *Lundberg Family Farms*. Lundberg Family Farms Inc., 2012. Web.

it.¹¹² In the early 1970s, the Lundbergs joined the Rodale program and later became certified by CCOF.¹¹³

The four sons of Albert and Frances – Eldon, Wendell, Harlan, and Homer – founded the Lundberg Family Farms brand in 1973. The family business was dedicated to selling organic and eco-friendly rice to the people of California. The four brothers dedicated their lives to developing new rice farming techniques that would not cause soil erosion as per their father’s initial mission. The innovation of the brothers led them to discover new rice varieties and to expand their product line.¹¹⁴ In the 1970s, Lundberg Family Farms grew at an average of 11% per year, but in the 1980s, the increase demand for organic food caused sales to soar. The rapid growth in demand necessitated outside investment, which the four brothers found in the form of other organic family farms.¹¹⁵ The four brothers managed 5,000 acres, while the “Lundberg Family of Growers” managed 12,000 acres.

Today, Lundberg Family Farm products can be found at natural food and grocery stores throughout North America. The farm is the top marketer and grower of rice products in the natural channel. 70% of their products are certified organic and the other 30% are eco-friendly. The Lundberg family is fully committed to sustainability. Lundberg Family Farms uses solar panels to power their rice plants – currently, 11% of their overall energy usage is produced through these sources – and is partnered with Renewable Choice Energy of Colorado whose mission is to build wind farms throughout the western US. The farm is also a part of the non-GMO project which means neither their products nor their packaging contains genetically modified organisms.¹¹⁶

¹¹² Zimmerman, Eilene. "A Family Farm's Crisis: Its Rice Contains Arsenic." *New York Times* 22 Nov. 2012, New York ed., Business sec.: n. pag. *New York Times*. New York Times Company, 21 Nov. 2012. Web.

¹¹³ Guthman, pg. 112

¹¹⁴ "Our Family."

¹¹⁵ Zimmerman, "A Family Farm's Crisis: Its Rice Contains Arsenic."

¹¹⁶ "Fact Sheet." *Lundberg Family Farms*. Lundberg Family Farms Inc., 2012. Web.

The 17 rice varieties and the other 150 rice products sold by the farm produces more than \$50 million in revenue each year.¹¹⁷ Lundberg Family Farms does sell to farmers' markets, however the majority of its profits come through Internet, retail, and wholesale sales. The Lundbergs have a contract with online retailers, such as Amazon.com, and national natural food stores, like Whole Foods, making their products available throughout the country and around the world. Unlike many other organic farms in California who primarily use CSA programs or rely more heavily on farmers' markets, the Lundbergs ability to profit from retail and Internet sales allows the farm to venture into sustainable research and to utilize different sustainable practices. The Lundbergs did not fit into the traditional vision of organic farming, which began with small-scale, antiestablishment values. Rather the Lundbergs represent the modern scope of organic agriculture where big industry farmers and manufacturers promote sustainability.

Conclusion

The organic agriculture movement in California evolved from a small group of hippie farmers in 1973, to an industry profiting over one billion dollars annually. The path the organic industry took from the 1960s until now, however, is not the one that the early pioneers of the movement envisioned. CCOF went from being a volunteer-based certifying agency to an organization lobbying for statewide definitions, uniform standards, and enforcement power. The successes CCOF had in regulation allowed big business access to the organic market. California legislation would eventually be used as the model for the federal organic legislation in 1990, which, consequently, would allow for corporate domination of the organic market throughout the nation.

¹¹⁷ Zimmerman, "A Family Farm's Crisis: Its Rice Contains Arsenic."

Chapter 3

Organic Agriculture in Pennsylvania, 1945-1989

“God made the country, and man made the town” is a definitive expression of the viewpoint of most Pennsylvanians before the turn of the twentieth century.¹¹⁸ The majority of the population elected to live in the country rather than in the developing cities. The image of this country life is one that is strongly associated with simplicity. People living in the country did not own many things and did not worry about being fashionable or modern. The “Pennsylvania Dutch” – the term given to German-speaking immigrants – was the most populous sect of farmers in the state, living throughout the Southeastern and South central regions.¹¹⁹ The sect shared a culture, a language, and a background in farming. They also shared the issue of tilling land that was riddled with limestone, like the majority of Pennsylvania is. The laborious task of tilling the land followed a five-year rotation. The first year the “Dutchmen” would sod ground for corn; the second for oats; the third for wheat; the fourth for clover and timothy; and the fifth year the grass is used for grazing-ground followed by being sodded for Indian corn. In the fall of each year, wheat would be grown on the farms and take up the majority of the land.¹²⁰

On the farm, there were important gender distinctions in labor patterns and the work of the farmer’s wife was indispensable to its success. The wife was responsible for milking, raising the poultry, and maintaining a vegetable garden.¹²¹ Beyond the work directly on the farm, the wife was also expected to take care of the home. She would cook, clean, and raise the children, and still manage to find the time to turn the products of the farm into more marketable items like

¹¹⁸ Cowper, William. "The Sofa." *The Task*. Philadelphia: Dobson, 1795. *Archive of Americana*. Web.

¹¹⁹ Borie, Beauveau, IV. "Introduction." Introduction. Ed. Gregory Sharrow. *Farming and Folk Society: Threshing among the Pennsylvania Germans*. Ann Arbor, MI: UMI Research, 1986. Print. pg. 3

¹²⁰ Gibbons, Phebe E.. *Pennsylvania Dutch and Other Essays*. Philadelphia: J.B. Lippincott &, 1872. Print. pg. 35-36

¹²¹ Gibbons, pg. 39

cheese, butter, and soaps.¹²² The tradition of relying on women continued to be a part of the Pennsylvania Dutch lifestyle through the turn of the twentieth century as farm acreage was growing exponentially. The size of the farms necessitated more horses, mules, plows, and men in order for the land to be cultivated.¹²³ Soon after, machines powered by steam engines became commonplace on the farms, reducing the number of workers needed and the man-hours required to till the land.

With the changing times and the transformation of agriculture into a venture dominated by big business, the Pennsylvania Dutch fell behind the times. Today visitors to Pennsylvania looking for an authentic “Old Country” experience can build their entire vacation around Amish towns in Lancaster. The Lancaster County website offers a list of “Amish-themed attractions and events” and encourages visitors to explore the food and products sold by the people.¹²⁴ Although their culture has become a goldmine for Lancaster County, the Pennsylvania Dutch are still very much around. The agricultural practices they used in the nineteenth century carry on to today to a large degree. Although most Amish farms are not registered as certified organic with the USDA – due almost entirely to economic issues – most of the product sold on the farms fits the definition.

The agricultural practices of the Pennsylvania Dutch are only representative of one group of farmers in one region of Pennsylvania. Agriculture in Pennsylvania is incredibly diverse and crops vary by county. For example, Chester County in southeastern Pennsylvania specializes in mushrooms, tobacco, and grains, whereas Centre County in central Pennsylvania specializes in aquaculture, milk and dairy products, and other animal products.¹²⁵¹²⁶ In addition to diversity within the regions, the farms themselves were also diverse since most Pennsylvania farmers are

¹²² Gibbons, pg. 41

¹²³ Fegley, H. Winslow, Scott T. Swank, Alan G. Keyser, and Frederick S. Weiser. *Farming, Always Farming: A Photographic Essay of Rural Pennsylvania German Land and Life*. Birdsboro, PA: Pennsylvania German Society, 1987. Print. pg. 173

¹²⁴ Lancaster County Tourism. "Visiting the Pennsylvania Amish in Lancaster County." *PA Dutch Country in Lancaster, PA*. Pennsylvania Dutch Convention & Visitors Bureau, 2013. Web

¹²⁵ USDA. "2007 Census of Agriculture - Centre County." *Census of Agriculture*. United States Department of Agriculture, 2007. Web.

¹²⁶ USDA. "2007 Census of Agriculture - Chester County." *Census of Agriculture*. United States Department of Agriculture, 2007. Web.

mixed growers. Unlike in California where a farm would only produce one crop or one type of crop (such as only fruits or only vegetables), Pennsylvania farmers would grow all sorts of crops and also raise livestock or dairy cows. For mixed growers, organic certification is not the most cost effective opportunity. It would require a great deal of money to certify all of the different products at a mixed growers' farm because there are different certifiers for each product, such as a livestock certifiers and produce certifiers. For smaller farms, the premium price that they could attach to their products if they were to go through the certification process would not be enough to break even with the cost of certification. Organic certification prior to a national standard, then, was almost nonexistent in Pennsylvania because it was not economically viable.

The purpose of this chapter is to provide an overview of the emergence and development of the organic movement in Pennsylvania. The first section describes a study conducted by the Rodale Press that sheds light on the grave situation of agriculture in Pennsylvania in the 1970s. The Rodales not only influenced the spread of organic certification in California, as mentioned in the previous chapter, they also were actively involved in advocating organic farming in Pennsylvania. The Rodales used their institute to fund and develop studies about the importance of organic farming and used the press to get the studies published. The importance of the study that is featured in the first section is that it explains the situation that Pennsylvania agriculture was facing and how alternatives – like organic – were going to be necessary.

The next section is an explanation of the opinions of people advocating organic farming in Pennsylvania. The expert witness, Richard Harwood, featured in this section used economics and energy efficiency to rationalize why organic agriculture was necessary for Pennsylvania – reasons drastically dissimilar to the pioneers in California who were promoting more of a social agenda. The following section addresses the main issue hindering an organic certification movement in Pennsylvania: the inability to come up with a statewide definition. Since each county in Pennsylvania grew different crops, coming up with a standard definition for organic

was nearly impossible because the growing process for different crops is not uniform.

Pennsylvania regulators were wary of creating a statewide definition for an issue as complex as organic farming and so they opted to not create one. To make the case that organic agriculture still existed in Pennsylvania even without national standards or certifying agencies, the final section is a case study of a highly successful organic farm located in central Pennsylvania.

Revisiting Rodale & A Potential Pennsylvania Farm Crisis

As mentioned in Chapter 1, J. I. Rodale was considered the father of organic farming in the United States. His passion for living an organic life was demonstrated in every medium of his illustrious life. The Rodale Press, headquartered in Emmaus, PA, but with locations throughout the United States, published a series of health and fitness magazines that heavily assert the benefits of organic diets. Beyond its magazines, the Rodale Press additionally published books and articles about dieting, fitness, cooking, gardening, and other beneficial topics to help readers lead a sustainable, healthy life.¹²⁷ The Rodale Institute, also located in Emmaus, independently conducted research on the benefits of organic farming for both the land and the consumer. The Institute additionally made it their mission to share this information with farmers seeking to follow organic practices.¹²⁸

In 1980, the Rodale Institute conducted a study titled, “The Pennsylvania Food System: Crash or Self-Reliance,” the results of which seemed to prove that Pennsylvania was in trouble. A heavy dependence on importing food – nearly 73% of the total food supply – proved to be the biggest, and most costly problem facing Pennsylvania.¹²⁹ At a news conference at the capitol building in Harrisburg, Robert Rodale articulated the two problems arising from an almost

¹²⁷ Rodale Inc. "About Us." *Rodale Incorporated*. Rodale Inc., 2013. Web.

¹²⁸ Rodale Institute. "Our Work: Research." *Rodale Institute: Organic Pioneers Since 1947*. Rodale Institute, 2013. Web.

¹²⁹ Anglestein, Dick. "Study Says Pennsylvania Food System in Trouble." *Lancaster Farming* 25 Apr. 1981: 34. *ActivePaper*. Web.

entirely import-based food supply: the dependence on transportation and the healthfulness of the food. On the first point, Rodale first acknowledged that \$400 million dollars goes to the food transportation on its own.¹³⁰ This money, then, would be forced upon the consumers in the form of higher food costs. The heavy dependence on transporting the food also opened up room for clerical errors along with strikes and any other sort of disruption along the chain. Rodale's concern for the healthfulness of food derives directly from it being transported. In order for produce, in particular, to be transported across state borders, it was essential that the food be picked before it was ripe. The study found that the food purchased under those circumstances did not taste as good nor was it as nutritious as food grown locally.

The report outlined three recommendations intended to move Pennsylvania toward “a more self-reliant food system with its accompanying economic and nutritional benefits.”¹³¹ The most essential of these recommendations was to devise a statewide plan to increase self-reliance. Rodale saw this reliance beginning with the growth of vegetables. These vegetables, though, could not be grown with the intensive use of chemical fertilizers and heavy equipment, even though that was the conventional farming approach of most farmers in the state. Rodale feared that the erosion of the soil through these methods would cause farms in Pennsylvania to disappear altogether by 2030 due to a lack of tillable land.¹³² The other two recommendations focused on developing an emergency state plan for feeding Pennsylvanians in the event of crisis and educating consumers on their food system.

The results of the study point clearly to developing a more sustainable form of agriculture in Pennsylvania. Although the study did not directly state that organic agriculture was the solution, it did paint chemical fertilizers and heavy machinery as the villain. This was unsurprising when taking the mission of the publishing company into account. Within the

¹³⁰ Ibid.

¹³¹ Ibid.

¹³² Ibid

publishing enterprise, Robert Rodale was said to have coined the term “organic food.” To be considered organic, according to Rodale, the food must be grown without pesticides and artificial fertilizers and cannot be treated with any preservatives, hormones, or antibiotics. Critics of the Rodale Institute were troubled by the claims being made about the benefits of organic food. These claims were not explicitly listed on labels, since that would be illegal, but rather would be interspersed throughout advertisements in publications owned by the Rodale Press.¹³³ In a January, 1974 issue of *Prevention*, an advertisement for organic food claimed, “One M.D. in California has cured four cancer cases by putting them on a 100 percent organic diet.”¹³⁴ These sensational claims, while acquiring the casual enemy in the medical and agricultural fields, made many people consider purchasing organic food over conventionally produced food. In addition to these claims, the other work conducted by the Rodale Institute created many advocates for the organic food movement in Pennsylvania.

Advocating Organic Farming

The Rodales were also involved in the 1982 federal government hearing before the Subcommittee on Forests, Family Farms, and Energy of the Committee on Agriculture in the House of Representatives which discussed a proposed organic farming act.¹³⁵ The hearing called expert witnesses from throughout the United States who held ties with the organic food movement. In the opening remarks Jim Weaver, a representative from Oregon, noted that farmers throughout the country were looking for alternative methods of agriculture due to economic and environmental factors. Nutrient depletion and soil erosion had become so devastating that solely practicing conventional farming was not a sustainable model. Transitioning to organic farming

¹³³ Jukes, Thomas H. "The Organic Food Myth." *The Journal of American Medical Association* 230.2 (1974): 276-77. Web.

¹³⁴ J. I. Rodale, *Prevention*, January 1974, p 202

¹³⁵ United States. Congress. House. Committee on Agriculture. *Organic Farming Act of 1982*. 97th Congress, 2nd Session. Washington: US Government Printing Office, 1982. *ProQuest*. Web. pg. 1

was an option many farmers were advocating; yet, they did not know where to start.¹³⁶

Tremendous economic risk, coupled with the lack of knowledge farmers had about making the transition necessitated legislation. To demonstrate the possibilities of developing organic legislation, the expert witnesses were called upon next.

The witness from Pennsylvania was Richard Harwood, the director of the Rodale Research Center in organic agriculture. Harwood presented his testimony in strictly economic terms, because he realized that in order for the bill to pass, it needed to be apolitical and environmental issues tended to sway in a more liberal direction.¹³⁷ His testimony, then, focused on the numbers. He argued that there was a higher return in an organic system in terms of investment in machinery. When producing corn and grain on organic farms in Pennsylvania, 83% of the variable cost was machine based, as opposed to the statewide average of 47%.¹³⁸ The discrepancy in the numbers was made up by the percentage of variable cost that lies in buying pesticides and fertilizers on conventional farms. Organic corn in Pennsylvania had a variable cost of about \$75 an acre, compared to its conventional counterpart at \$116 an acre, with \$90 of that total coming from chemical costs. Since organic farms did not use chemicals, it was cheaper to farm an acre of organic corn rather than an acre of conventional corn. The majority of costs for organic farms came from the initial investment in machinery, whereas the majority of costs for conventional farms came from the combination of the initial investment in machinery and chemical costs. Without the chemical costs, organic farmers were able to break even more quickly from their investment in machinery. This proved that the organic farmer made a better investment when buying heavy powered machinery than the conventional farmer.

Harwood also made an argument for the less energy demanding nature of organic farm systems. By utilizing crop rotation and/or having animals and crops in the fields, the organic

¹³⁶ Ibid. pg. 1

¹³⁷ Ibid. pg. 39

¹³⁸ Ibid. pg. 40

farmer could alter the input needs for weed and pesticide control. He gave an example from his research of seeding legumes into standing small grains on a farm in central Pennsylvania, which reduced the weed control costs in corn the following year by one third. The year following when small grain is grown again, there was no weed control costs. He found that “organic farms require about two-fifths as much fossil energy [as conventional farms] to produce one dollar’s worth of crop.”¹³⁹

Pennsylvania advocates of organic farming, as demonstrated through the testimony of Harwood, were less vocal about issues such as social justice and protecting small farmers, and more vocal about the economic possibilities of organic. Opponents of organic farming in the state spoke in similar terms when considering the costs of becoming certified. The organic agriculture movement in Pennsylvania, unlike California, was not a social movement. Regulators in Pennsylvania were not promoting organics as a means of creating parity in agriculture and protecting the earth, but rather were focused on the economics behind not using chemicals and artificial fertilizers and using a less energy demanding system.

Defining Organic

Regulators talking economics were not the only people in Pennsylvania that were excited about the possibilities of organic food. By the late 1980s, a significant amount of Pennsylvanians was in favor of organic agriculture and eager to buy organic products. The issue preventing statewide organic legislation, then, lay not in the ability to garner popular support but rather the inability to come up with a uniform definition for “organic.” At the Joint Hearing before the Subcommittee on Domestic Marketing, Consumer Relations, and Nutrition and the Subcommittee on Department Operations, Research and Foreign Agriculture of the Committee on Agriculture in

¹³⁹ Ibid. pg. 84

the House of Representatives, the secretary of the Pennsylvania Department of Agriculture, Boyd Wolff, spoke to the issues arising from a lack of a statewide standard and the potential dangers associated with those issues. Speaking on behalf of the National Association of State Departments of Agriculture, Wolff used Pennsylvania-based examples echoing the shortcomings of the organic movement without a national definition.

Wolff began his testimony by explaining why he, personally, was concerned about the lack of a standardized definition. His position as secretary of the Pennsylvania Department of Agriculture came with the task of making sure the food being produced in the state was safe for consumers. Wolff was dealing with the safety and quality of the food being produced by organic farmers, rather than concerning himself with the overall mission of the organic movement. On organic production itself Wolff said, “I have quite honestly questioned the need for a program that will separate organic products as something special or better than the rest. I worry about the mother that may feel she that she may be a mother that is not providing her children with the best if they don’t buy organic.”¹⁴⁰ He realized, though, that the popularity of the movement necessitated standardized legislation so that consumers would actually be buying what the label says they were buying. To Wolff this meant policing food production agencies. In his home state, the check on production agencies came from adding to the pesticide and food inspection staff, ensuring that products could not fall between the cracks.¹⁴¹

State and Federal food regulating agencies held a public trust that Wolff believed cannot be bestowed onto third party regulators. Independent certifying agencies in several states, like California and Oregon, were regulating organic food production. Organic consumers shopping at farmers’ markets or from the farm itself put their trust in these independent agencies hoping they were getting a safe and organic product. Without uniformity throughout the States, though, it was

¹⁴⁰ United States. Congress. House. Subcommittee on Domestic Marketing, Consumer Relations, and Nutrition and the Subcommittee on Department Operations, Research, and Foreign Agriculture. *Proposed Organic Certification Program Hearing*. 19 June 1990. 101st Congress, 2nd Session. Washington: US Government Printing Office. pg. 29

¹⁴¹ Ibid.

impossible for consumers to know if what they were purchasing was actually organic. Wolff was most fearful of the mass amount of consumer fraud made possible through these agencies. Independent certifying agencies, as a result, were few and far between in Pennsylvania before the Organic Food Production Act in 1990.

The lack of certifying agencies, however, did not stop food labeled as organic from being sold in Pennsylvania. Regulators in Pennsylvania were frustrated because they knew producers wanted organic certification and consumers wanted to purchase organic foods. Wolff took issue with both facts. First, he believed that labeling food as organic was simply a “marketing tool for producers who want to produce, take the extra measure, and produce organic food.”¹⁴² Without a consistent standard for what organic food was, producers were able to jack up their prices without actually practicing any different farming techniques which lead to Wolff’s second issue: consumer protection. Wolff illustrated the potential misconceptions consumers could have when purchasing organically labeled food through a story about visiting a farmers market in Philadelphia. He came across two farmers whose produce claimed to be organic. He asked the first about his practices and the farmer was able to convince Wolff that he was successfully following organic practices. The other farmer similarly felt that he was following organic practices, though explained that he still used commercial fertilizer and that if he ran out of produce he would sell produce from neighboring farms even though it was conventionally produced.¹⁴³ The labels on the food from both farmers said organic, when in reality the second farmer’s produce did not even meet the most basic qualifications for being organic food. Consumers, then, were not being harmed physically, but financially. They were paying a premium price for produce that was identical to the conventionally produced produce in the neighboring stalls.

¹⁴² Ibid. pg. 30

¹⁴³ Ibid.

In the last few minutes of his time before Congress, a representative asked Wolff about Pennsylvania's statewide standards for organic production. Wolff admitted that Pennsylvania does not have standards "because we have been unable to define it." He personally could not come up with a definition saying, "If I could define organic food – I can't. If I could I guess I wouldn't be here, because we in Pennsylvania cannot make a definition that is applicable nationwide to permit interstate trading and all those things."¹⁴⁴ Wolff in these final moments certainly recognized the complexity of the issue. Consumer protection, producer's rights, and interstate commerce all factored in hugely to the debate on organic food and the regulators of Pennsylvania opted not to minimize the scope by establishing a narrow definition of the term. Even without a statewide definition, consumers throughout the state still elected to play the guessing game by buying food labeled as organic. One of the most successful of farms in the state, Walnut Acres, is featured in the next section.

Walnut Acres

Paul Keene was born in a small town outside of Lancaster, Pennsylvania in 1910. His passion and aptitude for mathematics led him to pursue an undergraduate degree from Lebanon Valley College, followed by a master's from Yale in the field. He taught for a series of years at Drew University in New Jersey before joining a Methodist missionary group that relocated him to a university in India. While in India, Keene became active in the Indian independence movement and eventually had the opportunity to meet the leader of the movement, Mahatma Gandhi. Keene was struck by the simplicity of Gandhi's home, but even more so, by the words he spoke to him. Gandhi instructed Keene to live a simple life – to give away all earthly possessions and help his

¹⁴⁴ Ibid. pg. 35

fellow man.¹⁴⁵ Gandhi's advice influenced the way Keene developed his business practices and inspired a lifetime of philanthropy. Keene's motivation to go organic, however, came from the work of another man working in India. Keene discovered the work of one of the founding fathers of the organic movement, Sir Albert Howard, shortly before returning to the United States.¹⁴⁶

Keene left his passion for mathematics in India, returning to the US with organic farming monopolizing his thoughts. In 1941, Keene and his wife, Betty, moved to Suffern, New York where they learned about biodynamic agriculture and the work of Rudolf Steiner. A year later, the Keenes relocated to Philadelphia where they taught biodynamic agricultural principles at the Kimberton Farms School. It was here that the couple met another aspiring agricultural farmer – J.I. Rodale. Keene met “Mr. Organic” while giving a lecture on natural farming methods. After the lecture, Rodale informed Keene about his dream of starting an organic farming and gardening magazine and asked if he would like to become the assistant editor. Keene declined the offer, but stayed in contact with Rodale throughout his life.¹⁴⁷ In 1946, the couple finally achieved their dream when they spent \$5000 to buy 100 acres of land in Snyder County, Pennsylvania. Following Gandhi's advice, the couple lived a simple life: the farm had no running water, telephone, or furnace.¹⁴⁸ Their first harvest came from six old apple trees, which gave them about fifteen bushels of apples. Not wanting any of their product to go to waste, the couple decided to produce apple butter using a kettle over a wood fire. Instead of using sugar to sweeten the product, the always health conscious couple ingeniously used a combination of sweet and tart apples until finding the perfect mixture. The product was marketed as “Apple Essence” and was sold for \$1 a quart.¹⁴⁹

¹⁴⁵ Sugarman, Carole. "Keeping the Faith at Walnut Acres." *The Washington Post* 7 Aug. 1991, Food sec.: E1. *LexisNexis Academic*. Web.

¹⁴⁶ Fox, Margalit. "Paul K. Keene, 94, Organic Farming Pioneer, Dies." *The New York Times* 18 May 2005, Business sec.: n. pag. *The New York Times*. The New York Times Company, 2005. Web.

¹⁴⁷ DeVault, George. "What Became of Walnut Acres?" NOFA.com. Northeast Organic Farming Association, Spring 2006. Web.

¹⁴⁸ Fox, Margalit. "Paul K. Keene, 94, Organic Farming Pioneer, Dies."

¹⁴⁹ *Ibid*.

That first year, the couple managed to sell one hundred quarts of Apple Essence. One of those hundred got into the hands of the food editor for the New York Herald Tribune, Clementine Paddleford. Paddleford loved the product and devoted an entire column promoting it. The column brought the attention of the public to Walnut Acres and transformed the struggling farm into a business.¹⁵⁰ In the following years, the Keenes developed and did most of their business through a catalogue. The products from Walnut Acres were among the first commercially available organic products in the United States.¹⁵¹ Each issue listed the products for sale – mostly jams, vegetables, soups, and meats – alongside their expensive prices. Customers at Walnut Acres paid at least twice as much as typical market value for the products they purchased. Keene felt the prices being charged for his products were fair, because they were a marker for his “insistence on freshness, natural ingredients, and attention to detail.”¹⁵² Keene was not a supporter of big businesses or the cheap food they marketed as the best.

The catalogue also included a column written by Keene himself about how the farm was doing and what was going on with his family. His customer base enjoyed the personable nature of his writing and associated it with the business. The catalogue itself communicated a “healthy organic lifestyle” and its simple layout seemed to say, “We don’t have time for anything fancy here. We’re too busy farming and bringing you these fresh foods. Trust us.”¹⁵³ By 1990, the mail-order business brought in about five million dollars, reaching a customer base of nearly one hundred thousand. The catalogue advertised nearly seven hundred products, including organic/natural foods, gifts, and household items.¹⁵⁴ While exponentially increasing its profit during those fifty years, Walnut Acres also inspired a new generation of organic farmers.

¹⁵⁰ Moore, Sally. "A Small Farm Grows to a Big Business." *The New York Times* 10 June 1987: C3. *The New York Times*. The New York Times Company, 2010. Web.

¹⁵¹ Fox, Margalit. "Paul K. Keene, 94, Organic Farming Pioneer, Dies."

¹⁵² Nussbaum, Paul. "Organic Farming, Fashionable again in U.S., has a Grandfather." *Chicago Tribune (pre-1997 Fulltext)*: 0. Apr 29 1990. *ProQuest*. Web.

¹⁵³ "There's Nothing Artificial about Walnut Acres." *Catalog Age* 7.9 (1990): 105. *ProQuest*. Web. 4 Feb. 2014

¹⁵⁴ Nussbaum, Paul. "Organic Farming, Fashionable again in US, has a Grandfather"

Motivated by the prose and work of Keene, budding entrepreneurs set their sights on owning organic farms.¹⁵⁵

By the time of Betty's passing in 1987, neither Keene himself nor Walnut Acres appeared to be what they used to be. Keene was suffering not only from the heartbreak of losing his wife, but also losing his sharpness due to the early stages of Alzheimer's. The organic and natural industries were netting nearly a billion dollars in the late 1980s, bringing big business into the once small farmer dominated world. To keep up with the times, Walnut Acres amended its catalogue to include imported and luxury household items.¹⁵⁶ The high demand for organic food brought with it a call for nationalized organic legislation and an imminent USDA seal of approval. By 1990, though a national seal did not exist, customers sought "certified organic" labels on their products. In 1991, after forty-six years of being one of the most successful commercially available organic producers, Walnut Acres met with a Pennsylvania-based organic certifying agency to get the official label.¹⁵⁷

Conclusion

The organic agriculture movement in Pennsylvania began due to the fear that agriculture in the state was not going to be able to feed the population. On the verge of crisis, scientists and regulators insisted that adopting more sustainable methods of farming, rather than just conventional farming or importing food, was necessary. The movement developed into a story of economics. The majority of mixed growers in Pennsylvania were uninterested in organic certification because they were aware of the costs of going through the process. However, there was evidence that organic farming was more cost and energy efficient than conventional farming.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Sugarman, Carole. "Keeping the Faith at Walnut Acres."

Pennsylvania farmers, unlike farmers in California, were not inspired by the organic agriculture movement as a means of promoting small farms and social justice, but rather saw it as either an economic burden or economic opportunity. Pennsylvania regulators, then, were not active in promoting national legislation – however, they realized that without adopting national standards farms in the state, such as Walnut Acres, would fall behind.

Chapter 4

The Effect of National Standards on Organic Agriculture

The origins of the organic agriculture movement in California differ dramatically from the story of what happened in Pennsylvania. The pioneers of the movement in California were hippie, back-to-the-landers, whereas the pioneers in Pennsylvania were scientists and regulators. In California, the movement emerged as a means of sustaining soil quality and promoting social justice, whereas in Pennsylvania it emerged out of necessity. Even with different origins to the movement, though, organic agriculture thrived in both states before a national standard was adopted in 1990.

A number of advocates from California were actively involved in promoting national standards, including many members of CCOF. Existing legislation from California – the California Organic Foods Act – eventually served as the blueprint for the Organic Foods Production Act, which provided national standards for organic production and labeling. The same level of participation and advocacy did not come from Pennsylvania. As was illustrated in Chapter 3, in Pennsylvania there were not many people advocating for national standards. Representatives from Pennsylvania, though, were integral to the legislative process as they insisted the bill could not be a de facto statement that organic food was somehow healthier or more nutritious than conventionally produced food.

The purpose of this chapter is to move away from state level organic legislation and toward a focus on federal standards. The first section is a look at food scares in the 1980s that gave organic agriculture national attention. When conventionally produced produce contained residues of pesticides and insecticides, people began to worry about what to eat and what to feed

their families. Since organic agriculture did not use chemicals, people flocked to buy organically produced food. Given the newfound popularity and massive expansion of the market, regulators and farmers alike became worried about fraudulent claims.

The following section is a look at the Organic Foods Production Act (OFPA). The section is divided into two parts: the testimonies of advocates and the testimonies of opponents. The debate over what the act would contain is essential to the story of organic agriculture. Advocates believed that consumer protection was important enough to warrant the bill, whereas opponents believed that the act would create misconceptions about the healthfulness of organic food. This debate is still highly relevant today because consumers are still confused about what certified organic food is.

The next section is a description of the follow-up legislation to the OFPA, the National Organic Program. This program is the one that modern day consumers are most familiar with because it created the USDA certified organic label. This section provides the answer to the main question of my thesis – what does certified organic mean – because it describes what the different certified organic labels mean and how they have to be used.

The final section shows how national standards affected the organic market as a whole. Through the creation of uniform national standards, businesses were able to ease their way into the organic market. This section demonstrates how the adoption of national standards allowed companies such as Wal-Mart to start selling organic food – effectively expanding the market to lower income households. National standards allowed organic food to be an option not just for the rich and middle class with disposable income, but for people of all income levels.

Food Scares Prompt Calls for Consumer Protection

In the 1960s and 1970s, mothers hoping to buy the “best” for their children were the primary market for organic food. Healthfulness claims – like those advocated by Rodale as mentioned in chapter one – and the fear of unnatural chemicals – such as DDT, highlighted in Rachel Carson’s *Silent Spring* in 1962 – led consumers to believe that organic food was “better” than conventionally produced food. The claims inspired a niche market for people willing to pay a premium price for organically produced food. The market for organic food hugely expanded in the 1980s when two instances of contamination from insecticide on conventionally grown produce garnered massive media coverage.

The first episode of insecticide contamination that merited national news coverage was Aldicarb in 1985. Aldicarb is a carbamate insecticide that was introduced to the agricultural community in the 1960s. Cotton farmers, in particular, liked Aldicarb due to its ability to control the aphid and spider mite population on crops.¹⁵⁸ Today, the insecticide is registered for use only on crops such as cotton, potatoes, and alfalfa because of the intrusive nature of the substance. The soil absorbs it and then it is taken up into the roots, stems, and leaves of crops.¹⁵⁹ Due to the high water content of certain fruits, like watermelon, the use of Aldicarb is prohibited because the fruit tends to absorb it in greater concentrations. Yet, even though the restriction was in place in that year, nearly 1000 people in California and Oregon found themselves becoming ill after consuming watermelons contaminated with the substance in the summer of 1985.¹⁶⁰ The cause of the Aldicarb in the watermelon supply is still unknown, although at least one incident came from

¹⁵⁸ "Aldicarb." *Extension Toxicology Network*. National Pesticide Information Center, 1996. Web.

¹⁵⁹ D'Haenens, Joseph P., Kimberly W. McDonald, Ricky L. Langley, Sheila A. Higgins, Rick Scott, Patrick N. Farquhar, and William J. Meggs. "Aldicarb: A Case Series of Watermelon-Borne Carbamate Toxicity." *Journal of Agromedicine* 18.2 (2013): n. pag. *Taylor & Francis Online*. Web.

¹⁶⁰ CDC. "Epidemiologic Notes and Reports Aldicarb Food Poisoning from Contaminated Melons -- California." *Morbidity and Mortality Weekly Report*. Centers for Disease Control and Prevention, 2001. Web.

an area where the watermelons grew in a field right next to a cotton field using the insecticide.¹⁶¹

It is also possible that some of the cases came from the illegal use of Aldicarb to treat watermelons.

Regardless of the cause of the contamination, the seventeen hospitalizations and hundreds of ill people in the summer of 1985 led to the destruction of all of the watermelon originating from California.¹⁶² A week went by before watermelons began reappearing in grocery stores. The California Agricultural Department realized that in order to get people to start buying the fruit again, efforts had to be made to disassociate watermelons with Aldicarb. So, when the fruit made its way back to stores, they had something they did not have before: a sticker. The California Department of Food and Agriculture mandated that only watermelons bearing a special sticker indicating that the field the melon originated from was free of Aldicarb could be sold.¹⁶³ In addition to the strict regulation of California watermelons, the state refused to allow melons from Texas and Oklahoma since neither state had established a method to test it for Aldicarb.

Californians were not the only people in the nation hesitating to purchase watermelons and California was not the only state reassuring its citizens of the safety of the food in grocery stores. In July 1985, the Chicago Tribune, for example, printed a story letting Chicagoans know that the local watermelons “presented no danger” because they did not originate from California.¹⁶⁴ The hysteria surrounding the Aldicarb contamination was rooted in the very real fear of illness and hospitalization. Four years later, though, Aldicarb was not the “dangerous” chemical making headlines.

A second episode of pesticide contamination occurred in 1986 when Alar residue was found on apples. Since 1963, farmers across the nation had been using Alar – the brand name of

¹⁶¹ Cox, Caroline. "Aldicarb." *Journal of Pesticide Reform* 12.2 (1992): 31-35. Northwest Center for Alternatives to Pesticides, 2000. Web.

¹⁶² D'Haenens, Joseph P., Kimberly W. McDonald, Ricky L. Langley, Sheila A. Higgins, Rick Scott, Patrick N. Farquhar, and William J. Meggs. "Aldicarb: A Case Series of Watermelon-Borne Carbamate Toxicity."

¹⁶³ Jarlson, Gary. "Watermelons Reappear in Markets." *Los Angeles Times* 12 July 1985. ProQuest. Web.

¹⁶⁴ "Local Watermelons Present No Danger." *Chicago Tribune* 11 July 1985. ProQuest. Web.

pesticide daminozide – on their apples because it made them “redder, firmer, and less likely to drop off trees.”¹⁶⁵ In 1986, however, the Environmental Protection Agency announced that it planned to ban the pesticide because of a study linking it as the cause of cancer in laboratory rats. Yet, after making the announcement, the EPA backed off for a few years before taking the preliminary steps to ban it. When taking these preliminary steps, the EPA noted that the chemical could be used on apples until 1990 since the traces found in the remaining food supply did not present a threat to humans.¹⁶⁶ The EPA’s changing stance on Alar confused both consumers and producers and led to independent investigation of the pesticide.

On February 26, 1989, the long-running news program *60 Minutes* did a feature segment on the dangers of the insecticide Alar calling it “the most potent cancer-causing agent in the food supply today.”¹⁶⁷ In the months after the segment aired, newspaper articles and news organizations published stories about the dangers of Alar. The fact that received the most coverage was that researchers had found that the most likely Alar “victims” were young children since apples containing the pesticide were commonly found in applesauce and apple juice.¹⁶⁸ These articles were accompanied by the very vocal actress Meryl Streep who was encouraging families to stop buying apples altogether.¹⁶⁹ And they did. School districts even started banning apples in cafeteria lunches.¹⁷⁰ In November of 1989, Uniroyal Chemical Company – the producer of Alar – requested to voluntarily cancel all food-use registrations of the pesticide, prompting the EPA to prohibit the “sale, distribution, and use of daminozide products labeled for use on food crops.”¹⁷¹

¹⁶⁵ EPA. "Alar." *EPA Terminology Services*. United States Environmental Protection Agency, n.d. Web

¹⁶⁶ "Apples and Alar." *Los Angeles Times* 18 Mar. 1989. *ProQuest*. Web.

¹⁶⁷ Egan, Timothy. "Apple Growers Bruised and Bitter After Alar Scare." *The New York Times* 9 July 1991. Print.

¹⁶⁸ Oakes, John. "A Silent Spring, For Kids." *New York Times* [New York City] 30 Mar. 1989. Print.

¹⁶⁹ PRwatch. "One Bad Apple? Facts and Myths Behind the "Alar Scare"" *The Center for Media and Democracy*. PR Watch, 1997. Web.

¹⁷⁰ "Apples and Alar."

¹⁷¹ Environmental Protection Agency. *Daminozide (Alar) Pesticide Canceled for Food Uses*. EPA. United States Environmental Protection Agency, 3 Feb. 2013. Web.

The controversy surrounding Alar enormously affected the apple industry. Apple growers throughout the nation were furious about the *60 Minutes* segment and the subsequent banning of the substance. The belief that the imminent threat of cancer was exaggerated in the *60 Minutes* segment, which led a series of Washington apple growers to file a – eventually unsuccessful – \$130 million libel lawsuit against CBS.¹⁷² Even the then-Secretary of Agriculture, Clayton Yeutter, was quoted saying, “he had ‘no hesitation in eating apples’ treated with the chemical Alar, saying the health risk was miniscule.” He went on to add, that “if you want to avoid food that has any potential health risk, you’re going to have a very narrow diet – you’ll be down to 75 pounds real fast.”¹⁷³ Still, apple sales plummeted for months.

Regardless of how real of a threat Alar posed to consumers, it still led to a massive influx of people looking for alternatively produced food. The Alar and Aldicarb scares greatly contributed to “a quadrupling of certified organic acres in two years.”¹⁷⁴ The increased demand for organic food opened up a new market for companies to invest in. Established organic companies were fearful that the expanded market would be filled with mislabeling and fraud, because of the lack of Federal definition for what constitutes “organic.” This fear of fraud, coupled with the momentum of the Alar scare, led to calls for national standards defining organic in deference to consumer protection.¹⁷⁵

¹⁷² "Judge Dismisses Apple Growers' Suit Against CBS." *New York Times* 14 Sept. 1993. *New York Times*. The New York Times Company. Web.

¹⁷³ Associated Press. "Apples given Vote of Safety Confidence." *The Daily News* [Bowling Green] 17 Mar. 1989, 66th ed. *GoogleNews*. Google. Web.

¹⁷⁴ Guthman, Julie. *Agrarian Dreams: The Paradox of Organic Farming in California*. Berkeley: University of California, 2004. Print. pg. 25

¹⁷⁵ Guthman, pg. 115

The Organic Foods Production Act

On June 19, 1990, only a year and a half after the notorious *60 Minutes* segment aired, the proposed Organic Foods Production Act was discussed in a joint hearing before the Subcommittee on Domestic Marketing, Consumer Relations, and Nutrition and the Subcommittee on Department Operations, Research, and Foreign Agriculture. Business owners, farmers, state representatives, members of governmental agencies, and sustainable agriculture operatives testified advocating and opposing the implementation of national standards. The proposed bill was written by Representative Gary Condit from California and prohibited chemical residue on foods labeled as organic and outlined a certification program.¹⁷⁶ As proposed, the bill focused entirely on consumer protection – stemming directly from the fears following the Alar scare.

Advocates of the bill believed that consumer protection was enough to warrant legislation. Frederick Kirschenmann, a farmer representing the Northern Plains Sustainable Agriculture Society, argued that without national standards, the United States would fall behind other countries, which would put organic farmers at a disadvantage in the export market. Delaying the legislation, to Kirschenmann, would be a mistake because it would, “not only deprive American consumers of the assurances they seek, it would deprive American organic growers of the market advantage they have developed.”¹⁷⁷ Mel Coleman, president of Coleman Ranches, argued that premium price attached to organic foods creates an incentive “for the unscrupulous to market organic beef or produce without abiding by State or third party certification rules and regulations.”¹⁷⁸ The lack of enforcing power afforded to the states and third party certifiers, to Coleman, formed a market of fraudulent claims, which hurt consumers and

¹⁷⁶ United States. Congress. House. Subcommittee on Domestic Marketing, Consumer Relations, and Nutrition and the Subcommittee on Department Operations, Research, and Foreign Agriculture. *Proposed Organic Certification Program Hearing*. 19 June 1990. 101st Congress, 2nd Session. Washington: US Government Printing Office. pg. 12

¹⁷⁷ *Ibid.* pg. 63

¹⁷⁸ *Ibid.* pg. 64

farmers following organic procedure. These sentiments were echoed in the testimonies of Russell Notar, senior vice president of National Cooperative Business Association, and Peter DeFazio, a Representative from Oregon, who similarly testified that national standards would benefit both producers and consumers.¹⁷⁹

Opponents of the bill took issue with a series of factors implied from the legislation and factors they believed were missing. Daniel Haley, an administrator from the Agricultural Marketing Service of the USDA, argued in his testimony that the bill did not do anything to ensure food safety and so, therefore, had no purpose.¹⁸⁰ He stated that Congress passing the bill would be an affirmation that organic food is somehow safer than conventionally produced food, when in fact there was no research supporting that statement. The Secretary of the Pennsylvania Department of Agriculture, Boyd Wolff, expanded on Haley's fear that consumers would believe that organic food was safer and criticized the public outcry toward conventional food:

Chances are that we would not be here today discussing this issue if it had not been for a recent barrage of dramatic charges about food safety. As the headlines grew more ominous, farmers and producers felt like infantrymen without a foxhole in the face of an all-out enemy attack. Consumers, watching the TV evening news while eating dinner, got themselves wondering which bite might be their last.

Boyd's hesitation to support the bill came directly from his fear of its motivation. In addition to opposition from the USDA, the Food and Drug Administration was also against the bill. The official statement of the FDA expressed concerns about the bill ignoring "the existing authority of the FDA and other Federal agencies charged with regulating pesticides and pesticide residues on foods, and labeling of food products."¹⁸¹ The FDA, similarly to the USDA, believed the bill "erroneously implied" that conventionally produced food was unsafe and that consumers would face high prices "without any proven public health benefit."¹⁸²

¹⁷⁹ Ibid. pg. 84, 90

¹⁸⁰ Ibid. pg. 96

¹⁸¹ Ibid. pg. 240

¹⁸² Ibid.

The concerns of the opponents, in the end, were defeated by the benefits outlined by the advocates and in 1990, as part of the Farm Bill of 1990, Congress passed the Organic Foods Production Act establishing national standards to govern the organic market. The establishment of national standards would act as a means of assurance for consumers that organically produced products met a consistent standard. In addition to protecting consumers, the act also facilitated interstate commerce of organically produced food.¹⁸³ The legislation created the National Organic Standards Board – an advisory board that would make recommendations on organic food and products to the Secretary of Agriculture. The act tasked the Board with developing a list of approved and prohibited substances for the production and distribution of organic food. The act additionally laid out the path of transitioning to organic, listed prohibited processes, practices, and materials, and outlined certification, labeling, and residue testing requirements.¹⁸⁴

National Organic Program (2000)

In the decade following the passage of the Organic Foods Production Act, the sale of organic food increased by approximately 20% annually.¹⁸⁵ In 1998, sales of fresh organic produce in natural foods supermarkets netted \$708 million; by 1999, sales reached \$833 million.¹⁸⁶ The authority to create a National Organic Program (NOP) and to develop organic regulations was bestowed upon the USDA as part of the Organic Foods Production Act. However, it took until 2000, with the pressure of increasing sales, for the program to be codified into law. The NOP facilitated the work of the existing National Standards board as a regulatory program housed

¹⁸³ Bones, Gordon. "State and Federal Certification Laws: Coming of Age?" *North Dakota Law Review* 68 (1992): 405-44. *HeinOnline*. Web. pg. 427

¹⁸⁴ H.R. 3359, 101 Cong., Congressional Record (1990) (enacted). Print.

¹⁸⁵ Winter, Carl K., and Sarah F. Davis. "Organic Food." *Journal of Food Science* 71.9 (2006). *Institute of Food Technologists: Feeding the Minds That Feed the World*. IFT, 2006. Web, pg. 117

¹⁸⁶ Klonsky, Karen. "The Organic Foods Production Act: How Will Implementation Change the Face of California's Organic Agriculture?" *Department of Agricultural and Resource Economics* (2001): 7-9. *Gianni Foundation of Agricultural Economics*. University of California. Web.

within the USDA whose mission is to “ensure the integrity of USDA organic products in the United States and throughout the world.”¹⁸⁷ Similarly, to the Organic Foods Production Act, the regulations established by the NOP did not address nutrition or food safety – its purpose was simply to “assure consumers that products with the USDA organic seal meet consistent standards.”¹⁸⁸

The NOP was responsible for both the development and the enforcement of organic regulations. This work involved managing the National List of Allowed and Prohibited Substances – established in the Organic Foods Production Act –, accrediting certifying agencies, providing training to certifying agents and USDA staff, and establishing international organic import and export facilities. Once certified by the NOP or a supported certifying agency, farms and companies are allowed to label their approved products with a USDA organic seal. There are four labels that USDA certified organic products can have: “100% Organic,” “Organic,” “Made with Organic,” and “Specific Organic Ingredients.”¹⁸⁹ Without a USDA seal of approval, it is illegal for a manufacturer or farmer to label their products as organic. The USDA labels, then, serve as an indicator to consumers that the product they are purchasing meets a nationally consistent standard.

Products labeled as “100% Organic” must meet three criteria. First, every ingredient in the product has to be certified organic. Second, any processing aids used by the producer have to be organic. Third, the label must state the name of the agent that certified the product on the information panel. The strict regulation of “100% Organic” products limits the number carried in stores. Most products are simply labeled “Organic” since many organic farmers and manufacturers use non-organic ingredients that are allowed per the National List. “Organic” products are 95% organic ingredients, which allows for the 5% of approved non-organic

¹⁸⁷ USDA. “National Organic Program.” *Agricultural Marketing Service*. USDA, 15 Jan. 2014. Web.

¹⁸⁸ *Ibid.*

¹⁸⁹ *Ibid.*

ingredients. Like the “100% Organic” products, “Organic” products must state the name of the certifying agency on their information panel.¹⁹⁰ Both “100% Organic” and “Organic” products have a USDA seal on them, giving those products the premium price normally associated with organic foods. The premium price is the trade-off afforded to farmers and producers who went through the transition and certification processes to become organic.

The final two product labels, “Made with Organic” and “Specific Organic Ingredients,” are not allowed to include the USDA organic seal. “Made with Organic” products are made up of at least 70% certified organic ingredients. The remaining 30% of the product does not have to be organically produced, but they must be produced under approved conditions. The label on “Made with Organic” products cannot simply read “Made with Organic” – they are required to list up to three specific organic ingredients or ingredient categories. Products made up of less than 70% certified organic ingredients but that contain certain certified organic ingredients receive the final label: “Specific Organic Ingredients.” These labels tend to be attached to “ready-to-eat” products such as muffins or cereals. For example, if a muffin maker bakes their muffins with organic blueberries but uses conventionally grown flour and sugar, the information panel would have an asterisk next to the blueberries denoting them as certified organic.¹⁹¹

The certification process is time consuming and financially draining for smaller farms. The NOP’s transition program requires that farms converting to organic stop producing using conventional methods for three years to allow the soil to regain its nutrients. Following the transition period, the farm is responsible for additional costs and a vast amount of paperwork in order to officially become certified. These costs act as a barrier to farmers who are just starting out and those who gross between \$5,000-\$50,000 per year.¹⁹² Instead, these farmers often opt to forego becoming certified or to use other green labels such as “sustainably grown” or “pesticide

¹⁹⁰ United States. Department of Agriculture. *Labeling Organic Products*. USDA, Oct. 2012. Web.

¹⁹¹ Ibid.

¹⁹² Klonsky, Karen. "The Organic Foods Production Act: How Will Implementation Change the Face of California's Organic Agriculture?"

free,” since those labels, unlike the USDA organic label, are not regulated and do not require certification. As of 2012, approximately 30,000 organic farms and processing facilities around the world are certified to the USDA organic standards.¹⁹³

Effect of National Standards on the Organic Food Market

The increased availability of organic food caused sales to skyrocket in the 2000s. In 2004, four years after the implementation of the National Organic Program, organic food sales grossed \$11 billion. By 2012, organic food sales reached \$27 billion, accounting for 3.5% of total US food sales for the year.¹⁹⁴ The implementation of national standards dramatically opened up the organic food market. To get organic food, consumers now had options beyond farmers markets and health food stores. Grocery stores and supermarkets around the country started carrying organic food and developing organic lines for their store brands. The efforts of the Wal-Mart and Target corporations, in particular, to develop sustainable and organic food lines introduced organic food to a new market.

In 2010, 56.9% of Wal-Mart shoppers earned less than \$50,000 in household income.¹⁹⁵ Shoppers in this demographic do not have the extra money to pay the premium price attached to organic food in stores like Whole Foods Market which caters to higher-income shoppers. Once Wal-Mart introduced its organic food line in 2006, its lower-income shoppers finally had the option of buying organic food at a lower price. By 2012, Wal-Mart’s organic food sales were growing twice as much as their other food products – a clear indication of the demand for organic

¹⁹³ USDA. "National Organic Program."

¹⁹⁴ USDA ERS. "Consumer Demand Drives Growth in the Organic Food Sector." *United States Department of Agriculture Economic Research Service*. USDA, 8 Feb. 2013. Web.

¹⁹⁵ The Media Audit FYI. "Wal-Mart Grocery Shopper Less Affluent, Younger." *The Media Audit*. International Demographics, Nov. 2011. Web

food in lower-income households.¹⁹⁶ Although Wal-Mart carries organic produce, the majority of their organic food sales come from other products. Wal-Mart carries unique product lines that consist of traditional products produced using certified organic ingredients. For example, Kellogg's produces their conventional high-sugar content cereal using certified organic sugar and then sells the product exclusively at Wal-Mart stores.¹⁹⁷ Wal-Mart shoppers can buy their favorite products with certified organic ingredients at lower-than-grocery-store prices.

In 2013, Target launched its "Simply Balanced" line in 2013 in response to Wal-Mart and the growing popularity of organic foods. 40% of the products in the Simply Balanced brand are certified organic and by 2014, all of the products will be free of genetically modified organisms.¹⁹⁸ The brand's products, in terms of quality, are comparable to, and often exceed, the products produced by companies such as General Mills and Kraft Foods.¹⁹⁹ Since Simply Balanced is a store brand, Target is able to sell its organic products at cheaper prices than the organic products coming from distributors. The quality store-brand products allow the middle-class Target shopper to buy organic without breaking the bank.

Conclusion

The desire to protect consumers from chemicals in their foods and from a fraudulent market paved the path toward the implementation of national standards for organic products. Through the Organic Foods Production Act and the National Organic Program, certification requirements, product labeling, and manufacturing regulations were made standard throughout the United States. Importantly, the organic legislation only standardized those aspects

¹⁹⁶ Wal-Mart. "Wal-Mart Economic and Customer Insights Report - Q3 2012." *Wal-Mart Corporate*. Wal-Mart Stores, Inc., Nov. 2012. Web.

¹⁹⁷ Kastel, Mark A. "Wal-Mart: The Nation's Largest Grocer Rolls-out Organic Prices." *Cornucopia Institute White Papers* (2006). 27 Sept. 2006. Web.

¹⁹⁸ "Target to Launch Organic 'Simply Balanced' Brand." *Huffpost Business*. The Huffington Post, 7 June 2013. Web.

¹⁹⁹ Tuttle, Brad. "The Rise of the Swanky No-Name Brand." *Time Business and Money*. Time Warner, 11 June 2013. Web.

of organic farming. What the legislation did not do was require organic producers to farm sustainably, or state that organic food could only be produced at small farms. The legislation assured consumers that when they bought a product labeled as organic it had been produced in a specific way. Since big manufacturers and knew what standards had to be met, the market expanded dramatically. The expansion of the market prompted grocery stores and supermarkets to carry organic food or create their own lines. Through the increased availability of organic food, lower income household were finally able to afford organically produced food.

Conclusion

My thesis used California and Pennsylvania to illustrate how the organic agriculture movement emerged and developed differently throughout the United States. Different agricultural practices – such as mixed versus single crop growers – and different agricultural landscapes between the two states exemplify how diversified agriculture is throughout the United States. In California, the organic pioneering farmers were keen on maintaining quality soil while at the same time hoping to use their mode of agriculture as a means of expression. These farmers had antiestablishment values and wanted to use certification as a way of promoting small-scale farming. In Pennsylvania, the first people to advocate organic farming were researchers who were concerned about the state of agriculture. Organic farmers in Pennsylvania, then, did not believe in the social values of organic agriculture to the extent that early California farmers did.

California's use of third party certifying agencies was something that could not have happened in Pennsylvania. California had the ideal agricultural landscape for this type of certification and its farmers predominately grew one crop. From the beginning, members of CCOF were able to come up with organic standards and used those to certify other farms. Pennsylvania, on the other hand, was full of mixed growers who grew crops that varied based on what county they lived in. The varied agricultural landscape of Pennsylvania impeded the organic movement to the point where it was impossible for regulators to even come up with a statewide definition.

When national standards were created in 1990, many of the already certified organic farmers from California elected to decertify their farms because they had lost faith in what the movement had become. The certified organic label made it easier for big business to influence the

organic market and that was exactly the opposite of what the organic pioneers wanted. In Pennsylvania, the same sort of decertification phenomenon did not happen because there were only a limited number of certified organic farms before the OFPA. Through national standards, organic food went from being a market niche to a coveted commodity.

Organic food was introduced to the United States in the 1970s and never went away. Since the certified organic label was created in 2000, organic food sales have increased annually by 20%. The exponential growth of organic food sales since their introduction sets the organic movement apart from other food fads that made waves in the United States during that time. For instance, in 2003, the low-carbohydrate Atkins Diet was constantly in the news. Everyone had heard about the new diet sensation where people cut carbs out of their diet and lost tremendous amounts of weight. Companies started producing low-carb foods and putting low-carb labels on their already low-carb foods to serve as an indication that the products were “Atkins friendly.” Two years after the diet gained popularity, though, the Atkins Nutritional Company had to declare bankruptcy and people began to convert back to different forms of dieting.

The story of the brief popularity of the Atkins Diet is not unique. Many diets and food fads gain massive amounts of media attention only to be forgotten a few years later. This is not true of the organic movement. Organic agriculture has been an important part of US food sales for the better part of two decades and sales continue to increase as consumers have become more aware of where their food is coming from and how it is being produced. Since certified organic food has become increasingly available in the past few years, consumers almost always have the option to buy organic – and they do. The certified organic label means that the product was produced without artificial fertilizers and chemicals and that specific manufacturing requirements were met, and that is exactly what modern consumers want.

Organic food sales in 2013 reached \$35 billion. In the United States alone there are 18,513 certified organic farms, a 235% increase since 2002.²⁰⁰ Due to the popularity of organic food, the 2014 farm bill added \$25 million in funding to create new organic programs and to fund existing ones. The funding was made necessary due to the amount of consumer demand for organic food and the lack of resources on the part of certified organic farmers to keep up with that demand. Adding funding for organic programs through a national agriculture bill proves that organic agriculture is here to stay.

²⁰⁰ Beecher, Cookson. "'Historic Wins' for Organic Industry in New Farm Bill." *Food Safety News*. Marler Clark, 2 Apr. 2014. Web.

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