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The Movement for Sustainable Agricultural in Japan: A Case Study of Post 3/11/2011 Organic Farmers in Saga, Fukuoka, Kagawa, and Hyogo Prefectures

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in Saga, Fukuoka, Kagawa, and Hyogo Prefectures**

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**A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN THE
PROGRAM OF ASIAN STUDIES AT SETON HALL UNIVERSITY**

**SOUTH ORANGE, NEW JERSEY
2012**

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HYOGO PREFECTURES

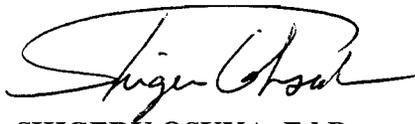
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With love, for my wife Makiko and my son Yuma

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ABSTRACT

The cumulative impacts of pollution caused by chemical agriculture, food-insecurity and the desire for safe, healthful, and trustworthy sources of food led to the movement for sustainable organic agriculture (*yuuki nouhou*) in Japan beginning in the 1970s. Since then, the movement has evolved continuously in response to economic, political, environmental, and social influences at local, national and international levels.

As a result of The Fukushima Daiichi nuclear melt-down on 3/11/2011, radiation contamination has spread to varying extents throughout many areas of Honshu, particularly in the Tohoku region, and has threatened the national food safety and food security of Japan. Organic farmers in all parts of Japan have turned their attention to this national disaster through their efforts to provide safe produce to consumers and through food-safety activism and anti-nuclear protesting.

The purpose of this thesis is to examine the state of sustainable agriculture in Japan and prospects for the future, including a discussion of the potential long-term impact of the Fukushima nuclear disaster on farming and food-safety in Japan. An emphasis is placed on organic farming (*yuuki nougyou*) and related sustainable farming methods, with a focus on the economics, politics, and social dynamics of the movement at local, national levels.

Chapter II, of this thesis includes a history of Japanese agricultural methods and changes in agricultural society from the Azuchi-Momoyama Period (1573-1603) until 1945.

An emphasis is then placed on post- World War II agricultural policy and conditions.

Chapter III introduces the field study methodology and provides background information on organic agriculture in Japan. Chapter IV provides information and analysis of Japan's legislation for Organic Standards of 2000 (JAS Law), including an interview with a registered certifying body. Chapters V and VI emphasize interviews with individuals connected with organic farming in various capacities. Interviews were conducted during the summer of 2011 in Saga Prefecture and Fukuoka Prefecture on Kyushu, in Kagawa Prefecture on Shikoku, and in Hyogo Prefecture on Honshu. Chapter VII examines the impact of the Fukushima nuclear disaster on organic agriculture and food safety in Japan with perspectives of the interviewees.

The conclusion of this thesis is that food-safety and radiation concerns will remain a central issue in Japanese agriculture for three or more decades and will heavily impact food usage, distribution, and international trade. Japanese food importation will likely increase substantially and organic and sustainable farming methods will be of tremendous importance in aiding with food-security. Local agriculture will also increasingly become an important source of safe produce. Details of these conclusions are given along with discussion of prospects for the future of Japanese agriculture.

CHAPTER I

INTRODUCTION

1. Basis of Research

Does organic agriculture in Japan offer a path for sustainability and food security for Japan in the long term? I asked this question before the Fukushima nuclear disaster with the expectation of finding that the Japanese organic farming movement was maturing and moving towards a model on a scale to provide a substantial percentage of food calories consumed in Japan. What I found was a much more complex and convoluted set of circumstances. Certified organic produce in Japan makes up only about .1 percent of all documented produce grown in Japan.¹ Furthermore a large portion of the organic farmers in Japan are uncertified and are not included in the government statistics. Finally, organic farming and farming in general in Japan is typically on a small scale and often part-time, limiting production potential. A question that arises is: What historical factors created these conditions?

During the occupation of Japan after World War II, the Supreme Commander for the Allied Powers (SCAP)² instituted a policy in 1947 called the Land Reform Law, which redistributed land and altered property rights. The fundamental structure of Japan as an agricultural society was henceforth altered. The Land Reform Law and a series of other

¹ Sakaguchi Nori, interview by author, Sasayama City, Hyogo, Japan, August 22, 2011.

² Supreme Commander of the Allied Powers (SCAP) was the title for General Douglass MacArthur during the occupation of Japan. The term referred both to the General and also encompassed all of the offices that operated directly under MacArthur as staff of the occupational command.

policies which followed were major factors which have resulted in the erosion of farming as a sustainable form of sustenance for the Japanese people. The steady decrease in the number of farmers, the amount of land farmed, and the percentage of calories produced on farms within Japan has been an ongoing trend since the 1950s. Other major factors which have influenced this trend include Japan's having become one of the world's leading technological and industrial producers, resulting in a flow of people from the profession of agriculture to industry, largely because of the profitability of industry versus agriculture. Furthermore, trade agreements with other countries have forced Japan to import large quantities of agricultural products from abroad. In most cases, produce from large countries such as Australia and the United States are grown and sold at prices far below what Japanese farmers can compete with. In an attempt to compete, Japanese farmers, led by the agricultural cooperative, Japan Agriculture (JA, *Noukyou*) attempted to modernize agriculture by the implementation of mechanized farming and the use of chemical fertilizers and pesticides. Although this served as a temporary solution, chemical agriculture has heavily impacted the health of farmers, the healthfulness of produce, and also has polluted the ecosystem. It is also not sustainable because it depletes the soil and in the long-term destroys productivity.

In response to environmental and health problems caused by chemical agriculture, and also to problems with the overall structure of farming in Japan, since the 1970s a movement for sustainable organic agriculture (*yuuki nouhou*) has emerged. While there are a wide

range of variations on just how *yuuki nouhou* is implemented, there is a common intention amongst the farmers pursuing this approach and amongst their customers to have food that is healthful, nourishing, and which can be trusted. As of the year 2000, the Ministry of Agriculture, Forestry and Fisheries (MAFF, *Nourinsuisanshou*) established the Organic JAS Law³ and JAS Mark certification system, which has begun to have a significant impact on organic farming in terms of marketing, business practices, and international competition.⁴

During the summer of 2011, I visited the prefectures of Saga and Fukuoka in Kyushu, and Kagawa in Shikoku, and Hyogo prefecture in Honshu, where I interviewed organic farmers and other individuals associated with organic agriculture in capacities such as producing, researching, testing, marketing, or consuming. The purpose of these interviews was to gain an understanding of how organic farming functions as a market in Japan and to investigate the complex web of interactions which influence how organic farming is carried out. My other objective was to gain an understanding of the Japanese perspective of their agricultural circumstance and to gain an insight into prospects for the future of sustainable agriculture in Japan. Finally, I wanted to investigate, political, economic, social, and environmental challenges to the field of organic farming in Japan.

At this time, the greatest single challenge to the agriculture and to Japan as a nation is

³ JAS refers to the Japan Agricultural Standard, a law which was first established in 1950 to set agricultural product quality standards and to establish a labeling system as a form of consumer protection. The Organic JAS law was an extension of the original law.

⁴ The Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF), Effective March 1, 2006 "Overview of Revised JAS Law," PDF article, (www.maff.go.jp/e/jas/pdf/law06.pdf).

the radioactive contamination caused by the damage to the Fukushima Daiichi Nuclear Power Plant resulting from the earthquake and tsunami which occurred on March 11, 2011. When I first began researching for this project, the nuclear disaster had not yet occurred. However, the contamination is very extensive and is at the level of a major national crisis in Japan. Many people consider it to be the worst disaster Japan has ever experienced since its involvement in World War II. Most organic farmers whom I spoke with during the summer of 2011 felt that any level of radioactive contamination was unacceptable, and that food produced in contaminated areas was not fit for distribution and consumption. Many of these farmers also believed that profiteers were evading weakly managed government regulations. I heard several accounts of reports in which these profiteers were seeking to sell contaminated produce cheaply, and even to mix it with produce from other regions so that it could not be detected, thus selling contaminated food to the average uninformed Japanese consumer. Farmers advised against eating at inexpensive family restaurant chains, saying that the food sources could not be trusted. Shortly after hearing this in August 2011, there was a television news report stating that there were a group of individuals who had become severely ill after eating at one of these family restaurants, though the exact nature of the food contamination was not specifically linked to radiation issues. This was the first time that I had heard about food contamination in any restaurants in Japan. It is evident that food safety is a major concern for the Japanese people. The question arises: What prospects are

there for food safety presently and in Japan's agricultural future?

Virtually all farmers that I spoke with considered radiation contamination to be the single greatest concern, and they felt a great responsibility to produce the best and safest products possible in order to provide reliable and trustworthy food directly to their customers, even if only at a local level. To attempt to discuss organic farming in Japan, without addressing the current nuclear crisis would be a gross oversight. In spite of this, organic farmers in Kyushu and Shikoku continue to farm at the local level, experiencing perhaps a lower level of impact than those residing in Honshu. Also, it should be noted that the two farmers that visited on Honshu were both activists involved with the anti-nuclear movement. This heavily influenced their perspectives.

From what I have observed, it is clear that the organic farm movement in Japan is still very small and not yet as unified as it needs to be in order to protect and promote sustainable agriculture as a primary mode of farming. There are nearly as many approaches to organic and natural farming as there are farmers, and there are numerous models for how organic produce is marketed and distributed. While the government has defined the minimum requirements for Organic JAS certification as a *yuuki nougyou* (organic agriculture) farmer, many of the farmers that I interviewed felt that the standards were arbitrary and that they are not accurately enforced. Furthermore, many farmers have opted not to be certified, forfeiting their right to use the term "*yuuki nousanbutsu*" (certified organic produce) and

forgoing the opportunity to use an organic JAS Mark in their marketing. Instead, they market their food locally, or deliver directly to customers. In some cases they label their food as “produced non-chemically” without using the term *yuuki* (organic) which is for the exclusive use of certified organic producers. These non-certified farmers feel that they have been “*yuuki*” all along, and since they already have a supportive base of clientele, they have decided that there is no particular need to pay for the process of certification by some outside body. Furthermore, the system of certification may also be perceived as facilitating the importation of foreign organic produce which Japanese producers are forced to compete with.

A final question is: Are present models of organic farming structured in a way that is practical to meet Japan’s short and long-term needs? If not, what other possible options might exist to help Japan meet its long-term food-safety and food security needs in a sustainable way?

2. Research Methodology and Theory

I contacted various researchers on Japanese agriculture, economics, and politics, and people involved with organic farming in Japan in order to determine the availability of resources and to find out what research had already been done on the subject of organic farming in Japan. In particular Aurelia George Mulgan of Australia shared some her current research, which greatly facilitated my learning about JA, and its role in politics.⁵

⁵ Mulgan, Aurelia George, 2011, “The Farm Lobby” [This article will be forthcoming in the following

In addition, I conducted a survey of literature on Japanese agriculture and gathered information on agricultural developments in Japan from WWII to the present and seminal texts on Japanese agricultural philosophy, historical texts, village studies, and books on agricultural economics and politics.

In 1997 as an undergraduate at Rutgers, I had conducted research on the conservation status of the Japanese crane and the Kushiro wetlands in Hokkaido, Japan. During a winter trip to Kushiro, I interviewed a number of conservation specialists and wrote an honors thesis based on the interviews and other data gathered. For this thesis on organic agriculture and food sustainability, I opted for a similar approach. Two books provided a basis for methodology and for the theoretical approach to this research. They were *Haruko's World, A Japanese Farm Woman and Her Community*, by Gail Lee Bernstein,⁶ and *Shinohata, A Portrait of a Japanese Village*, by Ronald Dore.⁷ Both books involved the authors embedding themselves within the communities they were studying and then providing rich descriptions of their observations and extensively employing in-depth interviewing strategies to acquire information. I opted to use a similar approach, though my visits with individuals were short when compared with the two authors mentioned above. I examined interviewing

book: Inoguchi, Takashi and Jain, Purnendra, *Japanese Politics Today*, Palgrave, 2011.] Mulgan, Aurelia George, 2012 "Agriculture" [Chapter submitted for inclusion in: Babb, James, *Handbook of Modern Japanese Studies*, Sage, 2012.]

⁶ Bernstein, Gail Lee, 1983, 1996, *Haruko's World, A Japanese Woman and Her Community*, Stanford California: Stanford University Press.

⁷ Dore, Ronald, 1978, *Shinohata, A Portrait of a Japanese Village*, New York City, New York: Pantheon Books, A division of Random House, Inc.

strategies and theoretical approaches to interviewing and analysis using *Interpretation and Method, Empirical Research Methods and the Interpretive Turn*, edited by Dvoora Yanow and Peregrine Schwartz-Shea.⁸

After 9 weeks of field research and interviews in Japan, in order to be certain that adequate historical analysis had been considered, additional book based research was conducted through literature on the agrarian history of Japan. I found that the impact of agricultural and social policy from as early as the Azuchi-Momoyama Period (1573-1603) has retained a degree of influence on the current structure and culture of agriculture in Japan. Therefore a historical discussion on this period up to WWII has been included in the first part of Chapter II. Specifically, a significant number of contemporary non-chemical farmers in Japan are attempting to utilize various historical farming methods, both for their functionality and as a way of returning to the cultural aesthetic of Japan's farming heritage.

This thesis is effectively divided into three parts. The first major part includes a history of farming from pre-Edo Period up to the present, with an emphasis on events after WW II. A discussion of the political and economic processes is central to the history with a focus on how this has created a climate for an organic agricultural movement in current day Japan. The historical section emphasizes literary research and the conclusions derived by comparing various sources. The second part includes field research along with interview

⁸ Yanow, Dvora and Shwartz-Shea Peregrine, 2006, *Interpretation and Method, Empirical Research Methods and the Interpretive Turn*, New York: M.E. Sharpe, Inc.

transcripts, narrative descriptions of my observations, and analysis. This section also consists of information and analysis of various sources such as organization websites and literature, some of which was provided by interviewees. The third part focuses on the significance of the Fukushima nuclear disaster and its impact on agriculture, food safety, and food security for Japan.

Conclusions and interpretations are intended to be a cumulative result of analysis of all of the above stated elements including information derived from the historical survey. Possible areas for concern should be first that my sample size for interviews was limited. Although subjects were located by a variety of means, it is clear that many of the introductions were within a particular sub-community of like-minded individuals, which may result in a skewing of perspectives. In other words, the points of view of very specific portions of organic farming society are represented but it is unrealistic to assume that they are representative of the majority of organic farmers in Japan.

In contrast, the significance of the research is validated because it was possible to compare and thus verify much of what was described in the literature-based data with on the ground subjects and the statements of those subjects. Based on that comparative evidence, it is likely that certain aspects of the individual perspectives of the interviewees are consistent with a larger population. Also there was a fair amount of consistency in business methodology and perspective amongst farmer subjects from all four prefectures where

interviews were conducted. This demonstrates that the characteristics of the individual subjects may be significant as models of larger trends.

One survey was taken at the Fukuoka Organic Agricultural Association (*Fukuoka Yuuki Nougyou Kenkyuu Kai*.) Initially, seventeen participants filled out surveys, but only 9 of the surveys had adequate information for conclusion. The survey demonstrated 1: who was in the mood to fill out a survey, and 2: some data on labor and marketing practices amongst the population of participating farmers. Since the information was consistent in terms of age and marketing strategies with other data gathered, it at least serves to reinforce the validity of other sources. However, there was no easy basis for comparison with other prefectural, regional, or independent organic agricultural associations in Japan. Further research will need to be conducted to obtain this data. No attempt has yet been made within the scope of this thesis to gather national data on JAS statistics, although official English translations of the JAS law and policy descriptions have been utilized. In summary, the data in this thesis relies on an interpretive sociological approach rather than a quantitative approach and so it is intended to provide a narrative description and interpretive rather than statistical analysis of organic agricultural social situations and prospects for sustainability in Japan.

Findings in this study may provide useful information for those seeking to understand current marketing and social trends in Japan's organic agriculture. In addition farmers' perspectives on the significance of the Fukushima nuclear disaster as it relates to agriculture,

the farming community, shifts in food consumption trends, and food safety in Japan became a major focus of this research. For the purposes of this thesis, unless otherwise specified, “JAS farmers” will refer to Organic JAS mark certified farmers, while “yuuki” or “organic” farmers will refer to all farmers who are chemical-free. Also the convention of placing last names first is used where Japanese people are named.

CHAPTER II

JAPAN'S AGRICULTURAL HISTORY AND POLICIES THAT HAVE DRIVEN CHANGE

1. Early Subsistence Farming Before Commercial Agriculture

Japan has been an agricultural society since the late Jomon (1000 B.C.E. - 300 B.C.E.) and Yayoi periods (300 B.C.E. - 300 C.E) when rice farming and various other agricultural techniques were imported from mainland Asia. Though variations in crops and methods were developed and modified through time and space to match local environmental conditions, farming up until the 17th century in Japan was almost entirely subsistence farming at the local level. Farming methods are believed to have changed relatively little for many centuries because the methods provided sufficient produce to support local populations and were sustainable in the use of labor and resources. This suggests that a system of equilibrium had been achieved and was maintained for a number of centuries. For today's organic farmers, these historical methods are now providing some basis for creating new sustainable approaches to farming.

The landscape of Japan until the 17th century was likely a synthesis of the following factors. Terracing was increasingly used for rice-farming throughout Japan as population and productivity demands increased. Though rice paddies came in all shapes and sizes, they were constructed by the formation of uniformly flat paddies surrounded by an elevated lip or dike of packed earth. The construction and maintenance of the paddies created an aesthetic

that has come to be a defining characteristic of Japan. In contemporary times the earthen lip surrounding rice-fields has often been replaced by concrete, saving labor, at the expense of the landscape and nature.⁹

The landscaping, preparation and maintenance of terraced rice-fields along with the demands of seasonal multi-cropping was extremely labor intensive. Terracing was a practical necessity in order to make use of land that was mountainous. In many cases, multi-cropping was practiced with varied crops being grown in between the rice-fields, or in alternating seasons in the rice-fields themselves, when the fields were not flooded.¹⁰ In these systems plants that cooperated and supported one-another were grown together, in layers, and animals such as worms to help build soil, and spiders, dragonflies, frogs and ducks to prey on pests were encouraged through the creation of hospitable habitat conditions.¹¹

Irrigation was done through canalization, the creation of reservoir ponds (*tame-ike*), the use of a variety of water pumps, human powered, wind powered and animal powered, and through the manual moving of water using buckets and ladles. Water was needed both to sustain plants, and to prepare fertilizers, especially human or animal manure to be in a form where it could safely be used as a soil additive without contaminating the soil with e-coli or

⁹ Dore, 100-102.

¹⁰ King, F. H., 1911, *Farmers of Forty Centuries, Organic Farming In China, Korea, and Japan*, originally published with the subtitle "*Permanent Farming in China, Korea, and Japan*," Mineola, NY: Dover Publications Incorporated. 396.

¹¹ Fukuoka, Masanobu, 1978, *The One Straw Revolution*, The New York Review of Books, New York, Originally published in Japanese as *Shizen Nouhou Wara Ippon no Kakumei*, Tokyo, Shinjusha Publishers, 117.

other harmful bacteria. Water was directed to flow into the fields at the appropriate time of each season, followed by the routine of planting rice seedlings, raising and then harvesting them. Drainage was carefully controlled to prevent loss of nutrient rich soils.¹²

The steepest areas were left wild and reserved for shrines, temples, and nature.

Amidst the farmed areas were the houses and villages of the residents of rural Japan.

Surrounding the houses, which might actually abut rice-fields were the home vegetable gardens (*katei saien*) for family use and for the wealthy sculpted gated gardens for aesthetic enjoyment.

The consumption of forest products was practiced in cycles. Rather than clear-cutting, the selective removal of trees and brush from forests and mountainsides, in strips so that they would grow back as additional strips were cut at alternate locations during other years.¹³

The use of inedible woody crop matter as fuel was another well established practice that represented an efficient form of recycling and conservative resource consumption. Ash was used as an important component of fertilizers, thus returning nutrients to the soil with as little waste as possible. Grasses were also gathered and used as fertilizer.¹⁴ This efficient and sustainable use of resources was necessitated by farming taking place locally without inputs from other areas.

The above understanding of pre-commercial farming methodology is held as an ideal

¹² King, 293-310.

¹³ King, 152-166.

¹⁴ Dore, 100.

by today's organic farmers who seek to integrate and reconcile sustainable methodologies while maintaining commercially viable practices.

The traditional methods described above are more readily practicable by retiree farmers such as Tanaka Kinji whom I interviewed, who only needs to produce enough for personal and family consumption, and who are less immediately concerned about making a living and meeting deadlines.

2. Azuchi-Momoyama (1573-1603) to the End of World War II (1945)

During his rule, Toyotomi Hideyoshi (1536-1598) solidified the social classes and restricted the social movement between classes. He disarmed the peasantry and excluded samurai from farming, making each class dependant on the other. This policy change was maintained throughout the Edo period (1603-1868) and was one of the single most significant policies impacting agriculture up until the Land Reformation after WWII.¹⁵ The reasoning behind this statement is as follows: First, Hideyoshi's policy gave a greater degree of autonomy to farmers than they had when their superiors, the samurai had lived amongst them and farmed. Second, the movement of the samurai to castle-towns and city centers changed the economic flow and stimulated a general migration to population centers, resulting in the formation of sizable cities, where almost none had previously existed. Until the 1600's, substantial cities were limited to Kyoto (about 250,000 inhabitants) and Sakai (50,000

¹⁵ Smith, Thomas C., 1959, *The Agrarian Origins of Modern Japan*, Stanford, California: Stanford University Press, [general conclusion of entire book].

inhabitants).¹⁶ There were only about half a dozen cities with populations as large as 20,000. This changed dramatically through the mid 1700's and by the 1800's as Edo became a major city with 500,000 inhabitants and dozens of other (substantial, though smaller) cities emerged. By the 1850's it is estimated that about 22 percent of the population were located in cities.¹⁷

The autonomy of farmers along with the increasing need to feed city populations opened the gates for a shift to commercial agriculture in order to support cities. During the eighteenth century and early nineteenth century as farms transitioned from subsistence farming to commercial agriculture, the limiting factors of local resources and the environment required that inputs such as fertilizer and labor from outside be purchased in order to increase productivity. The basic essential considerations of agriculture: environment, irrigation, fertilization and labor continued to rule, however the individual farmers' reliance on maintaining an ecological balance within their immediate locality began to change. Farmers became specialized and productivity was increased and enabled by the purchase of manufactured fertilizer which was applied more intensively than in the past. To give a few examples of regional specializations, silk worm cultivation was heavily produced in central Honshu, while cotton was produced on the largest scale in Kinai. Sugar cane was produced mostly in southern Kyushu.¹⁸

The need for increased productivity led to innovations. As early as the 1700's

¹⁶ Smith, 67.

¹⁷ Smith, 68.

¹⁸ Smith, 67.

farming manuals were written and disseminated by farmers, enabling experience and methodology to be shared. While there were only a few mechanical developments in farming, such as a metal rice-thresher called a *senbakoki*, developed during the Genroku period (1688-1704)¹⁹ these provided more free time, which in turn enabled greater productivity for things such as the intensive and efficient multi-cropping or the production of additional cash crops.

Other developments included the availability of commercially manufactured fertilizers made of dried fish, human manure, and green manure. This freed up farmers from having to collect grasses and other fertilizer components which had in the past been a major investment of labor. The commercial fertilizer was necessitated by several factors. The increase in productivity and especially of wide-spread wet-rice farming required many times more fertilizer than had been previously used. Local sources were rapidly depleted, or were inadequate to meet required amounts. Therefore, human waste from cities such as Kyoto and Osaka, along with dried fish from the sea were substituted as fertilizer and widely distributed.²⁰

Advancements in irrigation were possibly the most significant technical developments in agriculture during the Edo period. Smith described that irrigation projects included “the construction of thousands of small wells, ponds, ditches, and devices for lifting small

¹⁹ Kjeld Duits, May 15, 2008, “Threshing Rice,” Old Photos of Japan website, Tamamura, Kozaburo (photographer) 1890’s, image number 71205-0009, <http://oldphotosofjapan.com/photos/244/threshing-rice>, accessed May 11, 2012.

²⁰ Smith, 92-94, 101.

amounts of water, but much of it was on a very large scale- great arterial ditches carrying water a score of miles or more, drainage and embankment works that for the first time made arable the rich alluvial soil along the lower courses of large rivers, and so on.”²¹ The irrigation projects greatly expanded the areas that could be farmed productively.

For those with small holdings, the farm household was limited to the nuclear family. If family size exceeded productive capacity for the property owned, family members would in many cases either be sold to a larger family.²² Farmers with larger holdings that required more labor than could be provided by the nuclear family would rely on extended families which could include wives who married into the family, children, grandchildren, uncles, cousins, and so on. In the case of bought family members, these were among the first tenant farmers (*kosakunin*).

Farmers that were land owners accumulated substantial wealth and also political clout. This became especially relevant during and after the Meiji Restoration (1868) when the support of farmers became significant in governmental change.

Additional demands for increased productivity towards the end of the 1800's were satisfied through further intensification of increased labor. As Japan acquired colonies in Korea, Manchuria, Taiwan, and other places, and began to import agricultural products, it can be questioned as to whether Japan was approaching the limits of its long term capacity to

²¹ Smith, 97.

²² Smith, 12-23.

support its population. An impending resource crisis certainly played a role in Japan's imperialism.

In general terms, the Meiji era (1868-1912) intensified and nationalized productivity through labor inputs, and this trend continued during the Taisho period (1912-1926) and the first two decades of the Showa period (1926-1989) as local and national guidelines and recommendations for farming were regularly disseminated. As noted though, significant mechanization and chemical application occurred largely after World War II (WWII). By WWII, tenant farming was equal to about 46 percent of all farmers in Japan and about half of the Japanese population was engaged in agriculture.²³

While agricultural changes have continuously occurred since the 1600's, the framework of the past is still evident in the landscape of Japan today. Terraced rice-fields are still found all throughout Japan, and tea, silk farming, and fruit orchards are still found in virtually all rural localities, often on the hillsides above rice fields.

With the Land Reformation after World War II, the social structure of agriculture that had evolved since the 1600's was immediately restructured, and reshuffled. In spite of this, people who pre-existed World War II continued to interact, and many of their agricultural methods and social customs were carried on even if adjusted in order to adapt to new conditions. The Japanese agricultural system was then shaken up and altered further by the

²³ Schoppa, Kieth, 396 Source: Excerpt from the SCAP Directive on Land Reform, Schoppa cites David J. Lu, *Japan: A Documentary History*, Armonk, NY 1996, 344.

development of mechanized and chemical farming and the trend towards part-time farming. Mechanization substantially altered the landscape. This process is detailed in the next section of this chapter.

In recent years, part-time farmers, the majority of whom are retirees and the elderly, farm less for commercial purposes than for personal consumption, and therefore, rely less on mechanization and chemicals than might be expected. People have learned that chemicals in general are harmful to their health, and therefore have begun to reduce their reliance on them. While not quite a return to the labor intensive, ecologically more balanced methods of the past, some part-time farming has shifted back towards these traditional approaches.

Organic farmers (*yuuki nouka*) who are on average, a younger population than the part-timers, represent a cross between market farming and traditional farming, while still using some degree of mechanization for efficiency. Chemical inputs are not used, with some specific exceptions. Culturally, organic farmers tend to embrace the concepts of agricultural community, and in that respect have resurrected some of the “sense of village” of the past. Many of them market only locally, and provide produce only within a small circle adequate to provide necessary income. There are also other means of distribution which are less direct and personal such as shipping produce to subscribers.

Shizen nouhou as propagated by men such as Masanobu Fukuoka (1913-2008) and Mokichi Okada (1882-1955), alone return to the old methods of farming, which depended on

labor and the environment. Mechanization and chemicals are of course excluded, and marketing is an afterthought. For people following this path, it is often more a matter of principle and in many cases spirituality, but for only a limited few it is a source of livelihood.

The later portion of this thesis paper will investigate the movement for sustainable organic farming in current day Japan and to examine Japan's agricultural trends with regards to long term sustainability. At present Japan produces only 40 percent of its calories. One hundred years ago Japan produced nearly 100 percent. The question is then, what does the future hold for Japanese agriculture? My experience as a student of ecology has led me to conclude that the only sustainable agriculture is one that is energy efficient, minimizes pollution and is dependent only on renewable resources. Many farmers whom I have spoken with suggest that their methods are a return to Japanese traditional farming. In order to have a realistic understanding of what constitutes this, it has been a necessary to gain an understanding of the factors that drove the process of change in the past so that there is a basis for comparison with the circumstances of farming in contemporary Japan.

3. A Policy of Small Farming and Agricultural Protectionism (1945-2011)

With the occupation of Japan by the Allied Powers after WWII, a new constitution was imposed on Japan along with an extensive list of policy changes and reforms. Many of these modifications have played out resulting in unanticipated and/or unintended impacts and change in Japan. One such modification was the establishment of the Land Reform of 1947

in which land was redistributed amongst farmers so that prior tenants and previously wealthy land owners alike ended up in possession of one hectare of land on which to farm. The following excerpt from the 1945 SCAP Directive of Land Control shows that SCAP's (Supreme Commander of Allied Powers) intention behind this was to foster freedom, equality, and democracy.

In order that the Japanese Imperial Government shall remove economic obstacles to the revival and strengthening of democratic tendencies, establish respect for the dignity of man, and destroy the economic bondage that has enslaved the Japanese farmer to centuries of feudal oppressions, the Japanese Imperial Government is directed to take measures to ensure that those who till the soil of Japan shall have a more equal opportunity to enjoy the fruits of their labor. The purpose of this order is to exterminate those pernicious ills that have long blighted the agrarian structure of a land where almost half of the total population is engaged in husbandry.²⁴

Following the land reformation, a string of laws and policies, dictated by political self-interest has created an unstable base for the future of Japanese agriculture. The policy of land redistribution was intended to equitably change the structure and the dynamics of farm society. Small scale agriculture was to provide the basis for the nation's food-supply. Since the end of the US occupation of Japan until the present, the Japanese government has had numerous opportunities to restructure agricultural and land policies in order to make it a viable and healthy sector. Instead, it has maintained a culture of small scale agriculture combined with a more than half-century long pattern of agricultural protectionism. While

²⁴ Schoppa, 491-492.

Japan has become one of the most advanced nations industrially and economically, its agriculture sector has been left behind, and is not prepared to compete with international competitors such as the US, New Zealand, Brazil and many others who wish to sell food in the Japanese market. Currently, Japanese agriculture is inadequate to provide food self sufficiency, even though the Japanese government has repeatedly cited food security, and self-sufficiency as reasons for protectionism. The purpose of this section is to better understand how government protectionism has resulted in a self-defeating policy for Japanese agriculture and to understand the political mechanisms behind this process.

Aurelia George Mulgan's article "Agriculture" on Japanese farm policy provides some of the most up-to-date information and analysis on the subject of Japanese agricultural protectionism and its impacts:

Between 1960 and 2010 Japan lost 1.5 million hectares(ha) of land under cultivation, a 25 % fall... The agricultural working population peaked at 14.54 million in 1960 and dropped to 2.61 million by 2010, an 82% decline.... In 2010, the farm sector's share of GDP was only 0.9% compared 9.0% in 1960... and food calorie self sufficiency has dropped from 79% to 40%, the lowest in major developed countries.²⁵

Amongst those counted in the farming population the majority are part-time farmers, whose average age is over 70 years old.

Aside from agricultural policies, a major factor responsible for the loss of farmers has been their drift to other professions as Japan became a vastly successful exporter of

²⁵ Mulgan, Aurelia George "Agriculture," 2.

technology and industrial products. In addition, the mechanization of farming has reduced human labor requirements, freeing up farmers to take on other jobs. Mechanization however cannot account for the dramatic reduction in national agricultural productivity. Japan's agricultural policies have favored small agriculture and part time farming rather than larger scale farming operations. Significant land acquisition by individuals seeking to establish high productivity efficient farms has not received significant backing by either JA or the government. This has inhibited the development of agri-business and has thus prevented agriculture in Japan from being internationally competitive or independently capable of resisting the impact of foreign imports. Instead, the government of Japan has repeatedly provided a complex and varied series of extensive subsidizations and protections to keep Japan's small farmers secure.

At the heart of protectionist policies is the complex and mutually supportive relationship between politicians and JA. JA has had the majority of Japanese farmers as its members maintaining its status as an important constituency for elections. It has had a particularly close relationship with the Liberal Democratic Party (LDP, *Jiyuu-minshutou*) which was in power since 1955 until its defeat by the Democratic Party of Japan (DPJ, *Minshutou*) in 2009. Exterior market pressures pushing for the liberalization of Japanese food markets and the reduction of tariffs have been resisted and delayed as much as possible, by political maneuvering and by the slow process by which Japan

conducts much of its international negotiations.

Although in the past few years JA membership is decreasing (for a number of reasons), nearly the entire Japanese agricultural sector has been headed by the JA. JA is not just the national farm cooperative, but also functions as a lobby and agricultural policy advising organization. It also has various national administrative functions which blur the lines between its being a government agency or an independent organization. JA has proven to be very powerful and influential in politics and has been the chief player in maintaining the status quo of Japanese farming as the realm of small scale and part-time farmers.

Prior to WWII, only 30% of land was tilled by land owning farmers. The remaining 70% of the farming population rented plots of land from the land owners. Individual farmers managed relatively small plots of land.²⁶ The methods of farming followed traditional Japanese agricultural and in general was extremely labor intensive. During the 1800's through WWII, various policies were instituted in order to increase productivity, but for the most part, previously used methods were adjusted and streamlined by improving organization and efficiency, while adding labor.²⁷

In 1945, as noted previously, The SCAP Directive on Land Reform, required the Japanese government to establish procedures and laws for the equitable redistribution of land amongst the farm population.²⁸ The Land Reform Law of 1946 redistributed land so that

²⁶ Chan, Jennifer, 2008, *Another Japan is Possible*, Stanford, California: Stanford University Press, 117.

²⁷ Dore, 199-103.

²⁸ Schoppa, 346.

each farmer was given 1 hectare throughout most of Japan and not more than four hectares in Hokkaido.²⁹ The Japanese government required absentee land owners to sell their land to the government. If they were locally resident, they could keep one hectare (2.47 acres.) Acquired lands were sold to tenant farmers on a 30 year fixed rate loan of 3.2 percent. The redistribution of land was completed by 1950 so that only about 5% of farmers remained tenant farmers. At this time, approximately one half of the Japanese population was engaged in farming.³⁰ The land reform was significant because it established a large population as potentially independent land-owners and altered the social hierarchy, economic, and political structures of agriculture in Japan.

The 1942 Food Control Law (*Shokuryou Kanrihou/ Shokkanhou*) was a wartime law administered by Maff that established a direct link between farmers and the government in order to provide a control over distribution of staple foods. In 1952, the government raised the price at which it purchased rice, providing the first agricultural support to farmers.³¹

In 1947, the Agricultural Cooperative Union Law established a national system of farm cooperatives (*nougyou kyodou kumiai*) which formed the JA. Its original charter was to “promote the livelihood and agricultural production activities of farmers through self-help and mutual cooperation.”³² The other role of JA was to collect rice from its members to sell to the Japanese government which controlled rice prices and distribution. This was

²⁹ Chan, 117.

³⁰ Schoppa, 344, Schoppa cites Tsuzuki, *The Pursuit of Power in Modern Japan*, 357.

³¹ Mulgan, “Agriculture,” 4-5.

³² Mulgan, “Agriculture,” 6.

originally a wartime policy, but after the war, rice collection by the government continued as a structure for protectionism.

JA rapidly evolved from its initial form to become a tremendously powerful and influential institution. JA operates at the local, prefectural, and national level and since its formation nearly all farm households in Japan have maintained membership in JA.

Aurelia George Mulgan, in her article, "The Farm Lobby", stated that "JA's membership...is cemented by its all encompassing economic, social, and community roles in farming areas."³³

JA has taken on a large number of roles. It has a semi-governmental role in administering the farm sector and also has a significant place in determining national agricultural policy.

In addition, it lobbies on behalf of agriculture. The particular portion of JA that handles all political interactions and directs the farm lobby is known as *Zenchuu*. The Japan Farmer's

Union (*Nouseiren*) receives its directives from *Zenchuu*.³⁴ Representatives of JA sit in and participate on national policy meetings and have heavily influenced national policies.

Furthermore, JA has placed many of its own members in politics and elected them to political offices at both the local and national levels.³⁵

Throughout its history, JA has encouraged policies supporting small scale agriculture.

Albrecht Rothacher in his book, *Japan's Agro Food Sector*, wrote :

³³ Mulgan, "The Farm Lobby," 3.

³⁴ Rothacher, Albrecht, 1989, *Japan's Agro-Food Sector: The Politics and Economics of Excess Food Protection*, New York, NY: St. Martin's Press, 115.

³⁵ Mulgan, "The Farm Lobby," 4-6.

The Cooperatives' policy preference to insist on price increases over structural improvement is noted: it reflects its business emphasis to service part-time farmers and the bureaucratic organizational interest of its apparatus of 236,000 full-time officials and employees (1982) to keep the part-timers in business, to continue receiving rents and subsidies, and to enable organizational growth through continued corporatist high support policies. With Politics being the main provider, Nokyo's political investments and dynamism should not be surprising.³⁶

Although there are a variety of proclaimed justifications for this, a major political benefit is that JA maintains its support base by keeping the population of farmers as large as possible. Large, efficient farms or large-scale agri-business if allowed to dominate would substantially reduce the population of farmers in Japan, and thus reduce the constituent membership of the JA and potentially erode JA's power.³⁷ The particular structure of pro-small farm policies, along with Japan's industrial success has enabled and perhaps encouraged farmers to shift to part-time farming. Even though this has greatly reduced the agricultural productivity in Japan, both JA and dominant party politicians were willing to count part time-farmers as farmers in order to maintain their constituency.

Additional activities of JA include major business projects. JA has a major part in determining rice prices annually, and gets a cut of profits. It is in charge of rice collection to sell to the government. In addition, JA has major financial and banking businesses, responsible for managing farm finances. It controls agricultural technology and equipment manufacturing and distribution in Japan while advising farmers on agricultural practices such

³⁶ Rothacher, 115.

³⁷ Mulgan, "The Farm Lobby," 11.

as the types of fertilizers and pesticides that get used. In summary, JA is a massive government subsidized organization that has maintained a government supported monopoly-like control over agriculture. Protectionist policies have greatly facilitated JA's standing and enabled it to hold onto power and to grow. It has only been in recent years that JA has come under scrutiny of farmers, politicians, and consumers, for its privileged position.

Additional significant Japanese agricultural Laws included 1949 Land Improvement Law, which diverted substantial resources towards public works for agricultural land. Nationwide, this provided significant improvements for farmers.³⁸ In 1950 The Law Concerning Standardization and Proper Labeling of Agricultural and Forestry Products was established. This was known as the "JAS Law" (Japan Agricultural Standard) and was intended to set quality control standards and set quality labeling requirements.³⁹ Because of the 2000 revision of the JAS Law to include an Organic JAS category, the law has been very significant in its impact on organic agriculture in Japan. A chapter on the Organic JAS Law is included later in this thesis.

In 1952, the Agricultural Land Law was established to limit the conversion of farm land to other uses. The law backfired because land owners held onto their land for financial gains but did not necessarily use it for productive farming.⁴⁰

By 1960, there was already an evident trend towards drift from agriculture. In 1961

³⁸ Mulgan, "Agriculture," 6.

³⁹ MAFF, "Overview of Revised JAS Law", PDF article, (www.maff.go.jp/e/jas/pdf/law06.pdf), Accessed May 12, 2012.

⁴⁰ Mulgan, "Agriculture," 7-8.

the Agricultural Basic Law was designed to enable serious farmers to purchase land from people leaving agriculture in order to facilitate the growth of viable family farms.

Unfortunately, the law was undermined by political maneuvering. The LDP inserted a policy allowing for the government to stabilize prices. This provided a kickback to its supporters in the JA, which amounted to just about all the farmers in the nation. The impact of the LDP add-on was a disincentive for people to sell their farms, since in many cases the benefits of government support were more enticing than the land market.⁴¹ From 1960 to 2009, the average farm size only increased from .9 ha (hectares) to 1.41 ha. Full time farming however, may require close to 10 ha minimum in order to be profitable.⁴² Since 1961, land used for agriculture has decreased from 6 million hectares to 4 million hectares largely because of land abandonment. In the year 2000, the average age of farmers was between 70 and 74 years old.⁴³ At present, agriculture is the most regulated and supported part of the Japanese economy and after subsidies and support, agriculture in Japan effectively costs more than it produces.⁴⁴ It is clear that the structuring of agricultural laws has played a major part in creating these trends.

4. Foreign Pressures and a Shifting of Japan's Agricultural Protectionism

Through the 1954 Mutual Security Act, Japan was required to import 5 billion Yen

⁴¹ Mulgan, "Agriculture," 9.

⁴² Mulgan, "Agriculture," 3.

⁴³ Chan, 118.

⁴⁴ Mulgan, "Agriculture," 3.

worth of wheat from the United States.⁴⁵ This was a beginning of food liberalization, by which Japan began to accept certain agricultural products from abroad. It was also a beginning of weakening of food self-sufficiency. For example, bread was established as a staple food for school lunches for the School Food Law.⁴⁶ These types of changes had a significant impact on food culture in Japan.

As Japan industrial sector boomed, farms were subsidized to provide farmers with income comparable to urban workers. Price controls were set to keep the price of rice high and at times, restrictions were set on the amount of rice production that could take place in order to maintain high prices. If the prices went too low, this could push more farmers out of the business of agriculture. At the same time, the US and other countries wanted Japan to open itself up to importing rice and other agricultural products. While Japan has had the benefit of having a massive export surplus of technological and manufactured goods, it has been less open to accepting foreign goods and in particular foods.

There are certainly legitimate reasons for any country to restrict the amount and kinds of foreign agricultural products allowed into the country, the US and other members of the World Trade Organization (WTO) have loudly complained about imbalanced trade. Out of necessity in order to placate its trading partners, agricultural liberalization has increased in Japan as manufacturing exports from Japan have become vast. It was essentially a trade off

⁴⁵ Chan, 117

⁴⁶ Chan, 117.

that economically has been tremendously in Japan's favor.⁴⁷ In effect, the WTO has pressed Japan to make concessions, but has never managed to get the concessions on the scale or at the rate that it wants. From the Japanese perspective, the WTO wants Japan to sacrifice its food self sufficiency, which is already severely undermined. At the same time, the Japanese government has failed to redirect domestic agricultural policies in such a way as to fortify Japanese agriculture so that it can maintain itself as viable on both the national level, and as competitive or at least resistant to incursion from foreign markets. To satisfy the international community of trade partners and the members of the WTO, Japan has purchased rice according to agreed upon quotas, but rather than opening up the market and selling the rice within the country, it has used it for food aid for countries such as North Korea, Pakistan, Indonesia and other countries with shortages.⁴⁸ This has only temporarily buffered Japanese farmers.

In spite of protectionism, numerous factors have resulted in Japan having to import significant portions of its food. Some of the primary products include corn, and soy beans. In spite of certain quotas, rice has remained carefully guarded by the agro-political leadership in Japan. As of the 2001 Doha Round, Japan was pressured by its trading partners to reduce tariffs on rice imports from 490%.⁴⁹ Because Japanese rice is so much more expensive than foreign rice, even this level of protection would be barely adequate if

⁴⁷ Chan, 118.

⁴⁸ Rothacher, 134.

⁴⁹ Chan, 118.

Japanese consumers weren't willing to pay the extra price at the supermarket to enjoy domestically produced Japanese rice. Lowering the tariff this could result in complete rice liberalization, and have a disastrous impact on the Japanese rice farming industry.⁵⁰

Regardless of allowing products into the country, Japan's super-tariffs on imported goods have been an issue of conflict with its foreign trade partners. Some of these tariffs can exceed one thousand percent. In spite of this, foreign produced agricultural produce on Japanese supermarket shelves can still be significantly less expensive than Japanese produce. That is to say that in some cases, Japanese produce was more than ten times more expensive than the foreign produced foods. When considered in this way, the tariffs force the Japanese consumers to pay the Japanese government for its food purchases, but in turn, much of that money is going back to the farmers in Japan in the form of subsidies and support. In effect, the Japanese farmers, part-time or full time, get paid whether or not their produce is needed, provided that they are active members of JA. They get paid for the labor of foreign produced agricultural products.

Arguments could be made that foreign pressures and the flooding of Japan with low cost agricultural goods has made farming a losing game in Japan. There has also been cultural drift away from farming. It is not seen as luxurious or elegant. Many young Japanese have been lured away from farming by the prospect and appeal of life-time employment with a firm or corporation and at the attractiveness of cosmopolitan life. In

⁵⁰ Chan, 118.

addition, industrial success has created a wide range of profitable career opportunities. In order to make farming more attractive financially, and to put it on par with other sectors, it has been argued that protectionism is needed.

Food security is one of the most poignant arguments and Japan can always refer to episodes such as the 1973 U.S. embargo of soybeans during the Nixon administration to legitimize its position.⁵¹ Following is an abridged and condensed version of the official reasons in defense of protectionism and opposing liberalization listed in *Japan's Agro-Food*

Sector:

1. Japanese small farms cannot withstand a fully liberalized market and have failed for products already liberalized.
2. Agriculture is part of Japan's heritage and the Japanese diet is part of Japan's culture.
3. Food self-sufficiency is essential to Japan's security and well-being.
4. Japan's agriculture is essential to its environmental protection.
5. All countries protect agriculture and so it is Japan's right to do so.
6. Free-trade should not be applied to agriculture because it is specific to a country's condition and is a necessity product that can be controlled or inflated in price through external factors. Therefore domestic agriculture must be protected.⁵²

Zenchuu, the farm lobby has argued that :

1. Nations should give priority to domestic food autarchy, and mutually respect such policies.
2. Imports should only be undertaken to make up for inevitable structural or temporary shortfalls in domestic production.⁵³

There have been major impacts as a result of foreign imports. In addition to

⁵¹ Rothacher, 168.

⁵² Rothacher, 162.

⁵³ Rothacher, 162.

undermining Japanese agriculture, one major concern is the importing of genetically modified (GM, *idenshikumikae*) agricultural products. Other concerns include the culturally detrimental impacts and dietary impacts of these imports. In addition, the “multi-functionality of farms” serving for self-sufficiency, food security, ecological management, community structure, and regional development, are all areas of concern. In 1999, activists lobbied for Japan’s Basic Law on Food, Agriculture, and Rural Areas which aimed at addressing the above issues.⁵⁴ Grass roots responses have resulted in the formation of various NGO’s and lobbying groups to prevent the importation of or domestic production of GM. In addition labeling laws have been established under pressure from these lobbying groups to inform the public of what foods are GM or not.⁵⁵

The following issue demonstrates the validity of the argument against increased food liberalization: In 2003, 40% of corn imported from the US was genetically modified. 87.6 % of Japan’s corn was imported from the US and the remaining portion was imported from other countries. Grass roots activism resulted in the GM labeling law, The Law Concerning The Proper Quality Labeling of Agricultural and Forestry Products (an amendment to JAS), and the amendment of the Food Sanitation Law in 2001. According to the new laws, labels were required for foods with more than 5% GM content.⁵⁶ Progress has been made to put additional policies in place to provide additional food safety, however,

⁵⁴ Chan, 119.

⁵⁵ Chan, 118.

⁵⁶ Chan, 119.

Japan's food laws remain more lenient than food standard laws of the European Union.⁵⁷

Arguments for the national protection of agriculture are strongly reinforced any time food security or safety are threatened.

Opposition to protectionism has developed in the form of political maneuvering amongst the parties. While the LDP has been largely supportive of JA policies, and the DPJ continued the support of agriculture through direct payments to farmers, at various times opposition to protectionist policies has been voiced. In most cases, the JA has retaliated by threatening to withdraw votes or to boycott a brand. The Federation of Economic Organizations (*Keidanren*) is the big-business equivalent of the JA. *Keidanren* has used its political influence to continually recommend "market-oriented adjustment and gradual import liberalization,"⁵⁸ and has recommended improving the competitiveness of the farm sector. In a 1982 publication, Utada Katsuhiko the President of Ajinomoto, a major processed food corporation criticized agricultural policy and recommended a reduction in "hyper-protection" for JA, listing symptoms of the crisis of the rice production-distribution system:

1. The rising deficit of the Food Agency which buys rice at higher prices than it sells (140 Billion Yen in 1982).
2. The surplus disposal and storage costs for the unsold rice mountains (140 Billion Yen in 1982).
3. The need to pay premiums for paddy field conversion (350 Billion Yen in 1982).
4. Deficiency payments and other support for non-rice crops produced.⁵⁹

⁵⁷ Chan, 119.

⁵⁸ Rothacher, 117-118.

⁵⁹ Rothacher, 118.

Later there was a threatened boycott of Ajinomoto by Hokkaido *Nouseiren*. An earlier example of JA aggressively using its leverage was to threaten the 1974 withdrawal of votes from LDP candidates if its rice price demands were not met.⁶⁰

In spite of what has often amounted to rational opposition to agricultural protectionism, JA had managed to resist its political opponents up until the DPJ takeover. The implications of the takeover are that the farm lobby has been significantly fragmented, which may have opened up the possibility for longer term reform. Unless JA is able to regain its membership base, the farm sector will have lost its unified representation. As it becomes more and more fragmented as a voting block it will lose its clout as well as its strong voice to defend its interests. On the other hand, up to this point it is questionable that the legitimate interests of the agricultural sector have been well represented. While JA has promoted itself and its members by providing giveaways, it has greatly undermined the long-term viability of Japanese agriculture as a whole.

In summary, the LDP was the ruling party in Japan from 1955 to 2009. The JA and LDP have been mutually supportive. The JA has until recently been able to provide a massive block of votes through its membership base for LDP candidates. The LDP in turn wanted to maintain this support and thus set policies to favor small farming as the status quo. In the same way that the JA benefitted from a large membership under the small farm model, the LDP benefitted from their votes. To maintain this structure in the face of external

⁶⁰ Rothacher, 115.

pressures from the US and other countries seeking free trade, the LDP continuously devised a series of strategies that enabled them to continually provide support for small farming.

However, in spite of LDP support, the farming population has been in decline since the late 1950s

In 2009, the DPJ managed to wrench power from the LDP after 54 years of one party rule. The DPJ was able to divide the membership of JA by offers of direct support to farmers. By this method, the DPJ gave subsidies to farmers and cut JA out of the loop. Since JA was no longer needed in order to collect payments, many farmers abandoned their membership and transferred their votes to the DPJ. Since the DPJ has come to power, it has taken steps to undermine JA's role in policy making and the political process.

JA has also experienced a major decline in membership because there are fewer and fewer farmers in Japan and the average population of farmers is becoming older and older. Although JA remains an important and powerful organization, its influence has significantly declined under DPJ control.

CHAPTER III FIELD STUDY OF ORGANIC FARMING IN JAPAN

1. Objectives for Field Study in Japan

There are three major objectives for the field study portion of this thesis. First is to provide an outline of the history of organic agriculture and overall picture of the different methods of organic agriculture through the commentaries of the interviewees. Second, the interviews and descriptions of specific farmers and their activities will be used to illustrate the reality of day to day organic farming as well and reveal cultural and philosophical perspectives about organic farming issues. Finally, farmers' and other individuals' positions regarding the significance and consequences of the nuclear disaster will be considered with respect to its impact on organic farming, general agriculture and food safety in Japan.

To discuss the history of organic farming in Japan, organic farming must first be defined clearly. Although the terms have come up earlier in this thesis, I will reexamine them here. The Japanese word for organic farming is *Yuuki Nouhou/ Yuuki Nougyou*. It is translated directly from the words organic- *yuuki*, and *nouhou* - farming method. Both the English and Japanese versions of the words refer to farming without the use of chemical inputs such as fertilizers and pesticides. It is almost certain that the term "*yuuki*" was selected because of the already existing international organic farming movement from the late 1960's. According to one interviewee, retired organic agricultural professor Tanaka Kinji, there is no discernable distinction between the English word "organic farming" and its Japanese

counterpart “*yuuki nougyou*.”⁶¹ On the other hand, “*nouho*” is a more culturally Japanese word, meaning in which “*hou*” refers to a method, path or direction for doing things. Originally the exact standards of what qualified as *Yuuki Nouhou* farming was determined exclusively by the farmers and perhaps by the consumers as well, but in 1999, it was concretely defined by the MAFF, through a law including the adoption of international guidelines on what was to be considered “*yuuki*” was established. In 2000 the law for the establishment of Organic Japanese Agricultural Standard (Organic JAS) was ratified and added to the already existing JAS Law of 1950.⁶² It was revised in 2006. The Organic JAS law substantially altered the playing field in terms of how the business of organic farming was to be carried out in Japan. *Yuuki nouhou* farming, prior to assigning a legal definition was chemical-free farming and it was supposed to be carried out in safe and uncontaminated areas. This depended on individual farmers acting as their own over-site. According to Sakaguchi Nori, a farmer from Hyogo prefecture who was interviewed, he periodically conducts his own water and soil quality tests just to satisfy himself that the environment that he is farming is clean. His farm water comes from mountain runoff and springs.⁶³ However, he stated that almost no other farmers that he knows of actually conduct those sorts of tests. After the JAS Law was passed, only people who met specific

⁶¹ Tanaka, Kinji, interview by author, Mitsuse Town, Saga, Japan, July 12, 2011.

⁶² MAFF, Website 2007, “Overview of the Organic Japanese Agricultural Standard System, JAS” PDF article, (www.maff.go.jp/e/jas/specific/pdf/org01.pdf) Standard and Labeling Division, Food Safety and Consumer Affairs Bureau, MAFF (Article 1, of full PDF text).

⁶³ Sakaguchi interview.

criteria and who were certified could label their products as “*Yuuki nousanbutsu*” (certified organic produce) and include a “JAS mark” label. The process of certification required inspection and analysis by a registered MAFF accredited JAS certification body.⁶⁴ This would annually be renewed and standardized chemical tests and farm inspections would be conducted to verify that a farm continued to meet JAS certification standards. More will be explained about JAS later in the next chapter through an interview conducted with a JAS certifier and some examination of the specifics of the Organic JAS Law.

The distinction between farmers with and without the “JAS mark” is significant, especially because their business models vary substantially. The other important factor to consider is that only those people with JAS mark are registered as producing organic “*yuuki*” produce. It was apparent through the field study that at this time, the vast majority of chemical-free farmers have not opted for the JAS mark (for various reasons) and therefore there is no accurate way to measure on a national scale, just what percentage of the produce being made is chemical-free, or in practical terms from a health, environmental, and social perspective: organic. Also there are many part-time farmers with *kateisaien* (home-gardens) producing significant amounts of chemical-free produce. They make no effort to certify what they sell, or are completely non-commercial in their activities. In general, Japanese produce sold outside of JA, or outside of JAS is not included in the count of nationally grown products because there is no easy way to track it.

⁶⁴ MAFF (Article 1), 3.

2. The Foundations of Organic Farming in Japan

The Japan Organic Agriculture Association (JOAA) was formed in 1973 to bring together farmers and others who wanted to conduct sustainable, chemical-free farming. Even prior to this there were a variety of farmers who were practicing chemical-free farming. Men such as Okada Mokichi and Fukuoka Masanobu practiced variations on a theme that they called *shizen nouhou*. *Shizen Nouhou*, although the specifics varied between schools was essentially an approach to farming that emulated and utilized the ecosystem and minimized such practices as tilling the soil because of their tendency to disrupt natural systems. Okada's method is now carried on by a semi-religious spiritual organization called *Shumei*, which has branches all throughout Japan, but which is centered in Shiga Prefecture near Kyoto. Members of *Shumei* also have carried their method and philosophy of farming overseas and have branches in a number of countries including the US. In contrast, Fukuoka's variety of *shizen nouhou* may not have as wide of a dedicated following in Japan, but he was both nationally and internationally influential through his books, and in particular, *The One Straw Revolution (Shizen Nouhou Wara Ippon No Kakumei)* has received wide-spread acclaim and readership. It has been published in many languages and has inspired many Japanese farmers even though they may not precisely practice Fukuoka's methods. A third influential teacher of *shizen nouhou* was Kawaguchi Yoshikazu, who branched off from Okada. During the course of my interviews these men's names came up

repeatedly, and were mentioned by many of the organic farmers whom I spoke with. The *yuuki nouhou* farmers in general suggested that they held *shizen nouhou* as a high ideal, and that they were somewhere within the spectrum between conventional *yuuki nouhou* and *shizen nouhou*. In other words, they applied some of the techniques of *shizen nouhou*, but had not been able to embrace the model in its entirety. Amongst all the farmers that I met, only Tanaka Kinji, a retired agriculture professor was a pure *shizen nouhou* practitioner. It is also important to recognize that organic agriculture has been an international movement. While Japan's *shizen nouhou* is a homegrown approach to farming, Japan's organic farmers in contrast, have certainly been influenced by trends and methods used by organic farmers in other countries. An example of this is the usage of certain levels of mechanization in order to maintain competitive levels of productivity, balanced with the desire to conduct farming in harmony with nature. Most commercial organic farmers world-wide settle for using tractors and other mechanical equipment in order to remain competitive.

From very early on in the 1970s, organic farming in Japan had been conducted using a model called *Teikei*. "*Teikei*" is a term used to describe a cooperative relationship between the producers and the consumers. Consumers would have an annual subscription to a farm. In turn they would have to accept the foods that were produced and distributed by the farmer. In effect the consumers would support the farm in advance and in exchange would receive high quality, healthful organic produce. The success of the model has resulted in it

becoming wide spread in Japan. However, it must be kept in mind that organic produce as measured by JAS statistics only constitutes a small percentage of all produce grown in Japan. Even though the current model for assessing organic produce excludes significant numbers of credible, non-certified organic farmers, even with their produce added, the total percentage of organic produce grown in Japan would still only be a very small portion of the whole. Therefore, though the practice of *teikei* is wide-spread across the organic farming community, though not the only model for organic farm marketing, and the *teikei* community as a whole is very small in proportion to the total population of farmers and consumers in Japan.

According to a Hyogo Prefecture farmer named Hashimoto Shinji who was interviewed, Japanese organic agriculture has followed a pattern almost opposite to that found in the United States. In the US it started with farmers markets and supermarkets and then gradually integrated the model of CSAs (community supported agriculture) which emulated the Japanese *teikei* system. In Japan the *teikei* system is no longer the only source of organic produce now that supermarkets have gotten in on selling.⁶⁵ In the US, CSAs are definitely a niche market. People have to actively seek them out, and most American consumers are not even aware that they exist. They are a rarity at least in terms of the scale of the population but are significant as an alternative social model for food production and consumption.

While the model of *teikei* distribution of produce continues in Japan, *Yuuki* farmers

⁶⁵ Hashimoto Shinji, interview by author, Ichijima Town, Hikami, Hyogo, Japan, August 22, 2011.

have had to modify their distribution strategies to remain competitive with super-markets. With the government creating a law defining *yuuki nousanbutsu* and with the establishment of the “JAS mark” certification, supermarkets have begun to stock certified organic produce. Some of it is coming in from overseas, and some from a variety of areas in Japan. With the *teikei* model, consumers have to accept what they receive and they don’t get to pick and choose the vegetable or the outward (cosmetic) appearance of the produce. If they shop at a supermarket, they can pick exactly what they want and they can even get organic produce that may not be locally in season. While this is on the surface level, attractive to the consumer, it again distances them from the producers so that they can get food with little concern for the source or the ecological factors involved. To compete with this, many farmers who had been exclusively *teikei* farmers have had to shift at least partially, to selling their produce at supermarkets.⁶⁶ As will be seen, in some of the specific interviews and farmer descriptions, there are now even specialty supermarkets, specializing in local produce and organic produce as well as restaurants that cook using only ingredients produced chemical-free though not exclusively JAS mark produce.

According to Hyogo farmers, Sakaguchi Nori, and Hashimoto Shinji, a major concern amongst nearly all of the farmers and other individuals whom I interviewed, the biggest single problem in Japan now for farming and food safety is the radiation contamination caused by the Fukushima Daiichi Nuclear Power Plant disaster in March 2011. The

⁶⁶ Hashimoto interview.

radiation and cesium contamination that is prevalent in, but not limited to the Tohoku region in the prefecture surrounding Fukushima has had tremendously negative implications for agriculture, food-safety and for the long-term health of the Japanese people as a whole. In spite of the contamination, people continue to grow produce and to market vegetables and agricultural products even from some of the more contaminated areas even though it is illegal. Tests throughout the past year have shown very high levels of cesium in a variety of agricultural products. Considering that the purpose of the organic movement was to produce healthful, trustworthy, and delicious foods, the growing of legitimate organic produce in any contaminated area is impossible. Hashimoto Shinji argued that any produce that is radioactively contaminated is poisonous and should not be considered for consumption. Arguments about what levels of radiation are acceptable for human consumption completely miss the point. In these cases, people and the government are more concerned about commercial market damage control than about human health. Accordingly, safe foods need to be brought in from uncontaminated places, and in spite of sentimentality, people need to be moved, out of the most contaminated areas.⁶⁷

Because of the scope of the contamination, it would be all but impossible to evacuate areas with moderate levels of contamination. In that case it may have to be left to the discretion of individuals whether or not they will leave. However, In Hashimoto-san's view, as far as food is concerned, restrictions and safety measures must be put in place and

⁶⁷ Hashimoto interview.

rigorously enforced to prevent the distribution of contaminated produce and foods.

It was brought to my attention by several organic farmers in both Kyushu, and Shikoku that it is believed and widely rumored that contaminated foods are being sold cheaply to chain restaurants throughout the country and that vegetables from contaminated areas have been mixed with that from uncontaminated areas making it much more difficult to detect. In addition fishing boats have fished in contaminated areas and then have brought fish into distant ports and claimed that the fish were from uncontaminated areas. These stories are being discussed amongst the general Japanese population and likely hold plenty of truth to them. More discussion of this topic will take place in the chapter: “Perspectives on the Impact of Radiation Contamination on Organic Farming and Food Safety.”

3. Overview of Organic Agricultural Field Research

During the summer of 2011, Saga Prefecture became the site for my organic research for no other reason than that a friend, Akamatsu Takako, had evacuated there, back to her home-town with her children from Gunma prefecture after the March 3, 2011 earth quake, tsunami, and nuclear disaster, which I frequently heard referred to as 3/11. Originally I had intended to base myself in Hyogo prefecture near Sakaguchi Nori, a long time friend who is an organic farmer, and to use his network as a means of accessing the organic farm community. However the logistics of residing in Saga worked out more readily. Initially I was a bit concerned that I would have a hard time networking, but as it happened, Ms.

Akamatsu had several links to the community I was seeking, and a number of other links fell into place both by good fortune, and with a little bit of good old-fashioned journalistic investigation.

Akamatsu's childhood friend, Sachi had also evacuated with her children from Tokyo. Sachi's father, Kanamaru Yasutaka, was a retired high school agriculture teacher with a close friendship with a retired professor of organic agriculture, Tanaka Kinji. Virtually every contact led to Tanaka Kinji, but Kanamaru Yasutaka was the person who arranged for me to meet him and brought me to his house.

The luckiest coincidence during my stint in Saga was that the principal of my son's elementary school, Ogata Machiko (*Ogata Kouchou*) was directly connected to several prominent organic farmers (including Tanaka Kinji), and was closely involved in promoting organic agricultural education and food health for elementary school children. She was extraordinarily kind and took my family and me to dinner at a restaurant called Guza, which specialized in nature education, Japanese traditional living and traditional cooking.

Principal Ogata arranged for one of her organic farmer friends to join us at the restaurant, and from there I was able to gain introduction to many farmers in the Mitsuse area of Saga prefecture on the border of Fukuoka prefecture. This provided me with the core of my data for both Saga and Fukuoka, regarding the practical business of organic farming.

In addition, the vice-principal of the elementary school, Kimura Hiroshige was also a

part-time farmer and led the school's organic gardening projects. He also provided me with my first interview on June 28th, two days after I arrived in Saga Prefecture.

I purchased 100 copies of a bilingual *meishi* (business card)⁶⁸ that introduced my status as a graduate student at Seton Hall University. I went to some vegetable markets in Ogi town (where I was staying) and asked around about organic produce. Although the little vegetable shop that I was visiting had no certified organic produce, the young lady in the shop was eager to help and got her husband on the phone to give me directions to the Saga *Ichiba*,⁶⁹ JA farm produce distribution center. I pulled a pop-in visit and managed to get a brief interview with the director. He in turn introduced us to a man named Kizuka Tadamitsu who was company president (*shachou*) of a small independent JAS certification firm. As will be explained, JAS is the body that is entitled by the government to provide *yuuki* certifications. Kizuka spent two days with me showing me around, explaining JAS and even escorted me to visit a nuclear power plant at a place called *Genkai* in Saga prefecture.

Another place where I visited *apo-nashi* (without an appointment) was the Saga University Organic Agriculture Department. It paid off with an on-the-spot interview with a young professor named Tanaka Munehiro, who was specialized in researching the

⁶⁸ *Meishi* – a business card. It is customary in Japanese business and in professional social exchanges to have a formal name card to give to the other party to formalize a meeting. It greatly facilitates introducing ones-self and requesting information exchange.

⁶⁹ *Ichiba*, literally 'a market'- In this case it was a central distribution center for JA organic produce for Saga prefecture. There was a market there, but the primary purpose of the center was to administer distribution of JA products to various markets throughout the prefecture.

development of sustainable manure resources. He also facilitated a visit to the university's agricultural experimental fields on a separate day.

After one month of research in Saga Prefecture, I continued my research for one month in Kagawa Prefecture and also conducted a side trip to Hyogo Prefecture to interview additional farmers. I have organized interviews regionally as well as thematically in order to make this paper a practical reference for readers. While I have included the dates for each interview whenever possible, I have not necessarily listed the interviews chronologically. The precise dates are probably not particularly important in relation to each other, but keeping the specifics of when this research was conducted may become relevant as conditions on the ground change regarding both organic agriculture and the unfolding circumstances of the radiation contamination from the Fukushima Nuclear Power Plant disaster of 3/11/2011. As I was synthesizing this information, exactly one year after the date of the tsunami, the situation has of course evolved, and many pieces of information have become evident in the past half-year since I conducted my summer field-study in 2011.

Finally, I have opted to split some of the interviews into a few functional parts. The parts that are discussed in the regional section focus primarily on the agricultural components and the local community. This is to create an image of place and people. The parts in which farmers discussed nuclear issues, perspectives and activism are all concentrated in one section in an attempt to effectively synthesize and analyze the different perspectives in

relation to one-another. In total I conducted more than 15 full interviews. 14 of the interviews were conducted in Japanese. In addition, I had numerous shorter conversations with a wide range of people regarding organic agriculture and food safety. For some of the major interviews I took notes on the spot and then wrote out the key points of the interviews afterwards. For several of the major interviews, I recorded them on a video camera and then translated them into English directly. The complete transcripts for each recorded interview used in this thesis are included in the appendix at the end of this thesis. Several more interviews were not included because they were beyond the scope of this thesis.

CHAPTER IV THE LEGISLATION SETTING ORGANIC STANDARDS AND ORGANIC JAS CERTIFICATION

1. The JAS Law and Its Basic Components

The JAS Law (Japan Agricultural Standard) was established in 1950 as consumer protection law. According to the JAS Law, products in different categories could add a quality assurance “JAS mark” label provided that they met specific criteria and were inspected by a *registered JAS certifying body*. In 2000, the government expanded the JAS categories to include Organic JAS. MAFF set standards for farms to be certified as “*yuuki*” grade products. Because many farmers were already conducting organic agriculture at the time of the legislation, they were now faced with the dilemma of whether or not to become certified. Since certification is voluntary and optional farmers have opted in both directions. This section examines certain aspects of the organic JAS law and explores some of the pros and cons of Organic JAS certification through the perspectives of certified and non-certified farmers whom I interviewed during my field research. Figure one shows JAS labels. appear.

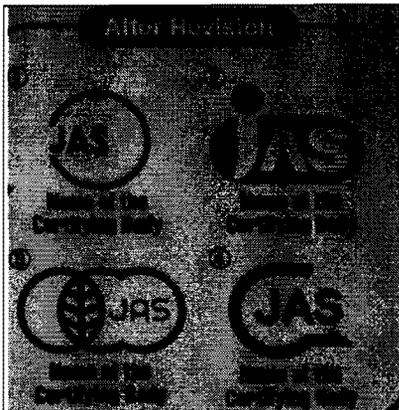


Figure 1: The JAS marks were revised in 2006 to the format shown in the diagram at left. The four JAS mark product categories are used for labeling a range of products with specific quality control characteristics.

The types of JAS mark include:

1. General JAS mark
2. Specific JAS mark
3. Organic JAS mark
4. JAS mark for production information.

The standards for JAS certification are based primarily on international organic standards. A likely motivation for the legislation was for the purpose of compatibility for international trade. This would allow foreign entities to get JAS certified and also allow Japan's organic farmers to meet international organic standards. The list of JAS registered certifying bodies on the MAFF website reveals that JAS certification is not directed exclusively at Japanese farmers. Many of the registered certifying bodies are listed as serving overseas certification and many of the countries such as the US, Canada, Australia, Germany, Switzerland and Italy, who are sending organic produce to Japan have one or more registered Organic JAS certifying bodies in their own countries.⁷⁰

The English MAFF website has a section titled: "Import of Products with JAS Marks."⁷¹ Under that heading the following document was listed and a relevant excerpt is provided here:

Countries whose Organic Rules and Standards Japan Approved as Equivalent with the Organic JAS System (As of March 2007):

1. Specified Agricultural and Forestry Products Organic Agricultural Products and Organic Agricultural Processed Foods
2. Names of Countries
Ireland, the United States of America, Argentina, Italy, the United Kingdom, Australia, Austria, Netherlands, Greece, Switzerland, Sweden, Spain, Denmark, Germany, New Zealand, Finland, France, Belgium, Portugal, and Luxembourg

⁷⁰ MAFF, http://www.maff.go.jp/e/jas/jas/pdf/rcb_100819.pdf, website accessed April 13, 2012.

⁷¹ MAFF, <http://www.maff.go.jp/e/jas/jas/import.html>, website accessed April 13, 2012.

The legal basis is in Article 15-2 of the JAS Law, which is available at this website.⁷²

This gives significant flexibility and advantage to those foreign entities which are already organic certified in their own countries in acquiring JAS certification. For each of the countries listed, the level of organic production far exceeds that of Japan, which would certainly create stringent competition for organic farmers. In general, organic farmers have also not received subsidies from the government. While this policy certainly is not protectionist, Japanese consumers may ultimately pay closer attention to which foreign produce is JAS marked and through their purchasing preferences raise the general quality standard for imported produce as a whole. The websites for OCIA International (Organic Crop Improvement Association) and FOA (The Food and Agriculture Organization of the United Nations) also provide guidelines for foreign entities on how to become JAS certified.

Returning to the list of registered certifying bodies, it was surprising to see that in Hyogo Prefecture, JA is listed as a registered certifying body for organic JAS produce. Although there are many branches of JA, and each may have its unique characteristics, it would appear to be a conflict of interest that the registered certifying body for organic produce is also the primary marketer of agricultural chemicals. Hashimoto Shinji whom I interviewed was vice president of the Hyogo Organic Agricultural Association, which is also a registered certifying body, preventing JA from having a monopoly on organic certification

⁷² MAFF, <http://www.maff.go.jp/e/jas/jas/pdf/import02.pdf>, website accessed April 13, 2012.

in the prefecture.

To become certified, farmers pay a certain fee to a registered JAS certifying body in order to have their farm assessed to determine if it meets the criteria for JAS certification. According to Kizuka Tadamitsu, whose interview I discuss below, if a client passed chemical tests and inspections, then they could receive the JAS certification. An annual fee was required along with periodic evaluations in order to maintain the JAS certification.

2. Kizuka Tadamitsu - A Registered Certifying Body for Organic JAS

I interviewed Kizuka Tadamitsu in Japanese at his office in Saga City on July 5, 2011. The transcript for his interview is included in the appendix. He gave an informative interview on Organic JAS, which was my first exposure to learning about organic certification and labeling standards in Japan. I met with him again on a separate day, expecting to go with him to some sites where he was doing JAS evaluation for “JAS mark” organic farmers. Instead, he escorted me to the nuclear power plant at Genkai in Saga Prefecture, which he felt was an important thing for me to see. (See Chapter VIII on Nuclear issues). Later, when I visited a JAS certified farm with Tanaka Kinji, I was unable to distinguish any significant differences between the practices of JAS certified and non-certified farmers.

Kizuka Tadamitsu had originally been a teacher in the JA who instructed administrative practices. When he retired, he decided to form a non-profit organization

Shoku En Kankyou Sougou Kenkyuu Shou Company, an NPO registered Organic JAS certifying body for Saga Prefecture and Kyushu. Since Kizuka was a JA retiree, he had a certain rapport with JA, which may have facilitated his work. To compare the size of the operations, JA is the mega-cooperative that more or less controls that main body of agriculture in Japan. JA has millions of members. Even the branches of JA typically have dozens if not hundreds of employees. In contrast, companies that are registered as Organic JAS Mark certifying bodies are typically very small scale in comparison. Kizuka had a handful of employees, most of whom were on a part time basis and some of whom were fellow retirees. They operated out of a modest office that was in a rural neighborhood. It seemed a bit like a trailer, or an inexpensive pre-fabricated building.

Kizuka explained that registered JAS certifying bodies certify that the field that an agricultural product is grown in was chemical free and that anything grown in the field is certifiable for labeling with the organic JAS mark.⁷³ The JAS mark serves the purpose of certifying organic quality at a national level. In many cases, non-certified farmers place their own labels on their produce to indicate that they don't use chemicals. This is only reliable at a local level however. In contrast, JAS mark labels include a specific number for each farmer which can be verified on the *Noushihyou* (Farming Index.)⁷⁴

For farmers to become JAS certified they are required to attend an official 5 hour *Yuuki*

⁷³ Kizuka Tadamitsu, interview by author, Saga City, Saga Prefecture, July 5, 2011.

⁷⁴ Kizuka interview.

JAS *Koushuukai* (JAS information program).⁷⁵ In addition their fields undergo inspection. The fields are required to have been chemical free for at least one year and they must be separated from fields where chemicals are used by some kind of divider or barrier to prevent “drifting or flowing” of chemicals.⁷⁶ The potential for being in close proximity to fields where chemicals are applied creates the potential for effluents to find their way into the organic fields. The Organic JAS law seemed to place the responsibility for deciding if a field had adequate measures in place to prevent contamination from adjacent fields or by aerial spraying nearby. The amount of time that a field has to have been separated from chemical farming also appears to have a degree of flexibility, and again the final decision lies with the certifying body.

Most farmers whom I interviewed acknowledged these rather loose issues and pointed out that Japan is a small country with limited agricultural space, so they had to be tolerant of their neighbors, at least within reason. The general attitude was that at least those fields where no chemicals were applied were guaranteed to be better off than those where chemicals were directly used.

When I visited Kagawa a farmer named Suezawa Takuro suggested that farmers were

⁷⁵ Kizuka interview.

⁷⁶ MAFF, July 2010, “Questions and Answers on the Japanese Agricultural Standards for Organic Plants and Organic Processed Foods,” preliminary translation prepared by Labeling and Standards Division Food Safety and Consumer Affairs Bureau, MAFF, <http://www.maff.go.jp/e/jas/specific/pdf/ojasqa.pdf>, accessed May 12, 2012.

beginning to move away from chemical farming. He hoped that in the next decade or so, the potential exposure to chemical runoff from other farms would be less of an issue.⁷⁷

3. JAS Certified Farmers and Non-Certified Organic Farmers

During the course of my field investigation, I encountered relatively few farmers who had JAS certification. In the case of my visit with JAS certified farmer Nakamura Katsuhisa it was specifically for the purpose of comparing JAS certified farmers with non-JAS certified organic farmers. Hashimoto Shinji was also JAS certified, and his reasons for certification were more than just commercial. He believed that organic certification and regulation on a broad scale was an important way to bring public awareness to food quality issues and to create an environment where consumers demanded organic produce and non-organic producers would be forced to become organic and certified in order to remain competitive.⁷⁸

Hashimoto's position was a form of activism. The average organic farmer that I encountered was not JAS certified, reinforcing my assessment that many of the chemical-free farmers in Japan are "off the grid" in terms of government statistics. They simply aren't counted.

It became evident that JAS certification was primarily purchased for its commercial value and that the majority of farmers that I encountered had little intention in being certified by JAS. The main reason for this was because of the extra expense which could amount to

⁷⁷ Suezawa Takuro, interview by author, Kokubunji Town, Kagawa Japan, August 19, 2011.

⁷⁸ Hashimoto interview.

more than 20,000 yen (about \$2500) for initial certification including inspections and administrative fees.⁷⁹ Some of the farmers that I spoke with already had sufficient clientele, and did not feel that they had a need to add the “JAS certified” credential. They had a relationship of trust with their customers. In more than one case, farmers felt that customers were not even specifically interested in “organic” produce, but rather in trustworthy produce or local produce. While visiting multiple supermarkets in Japan, I observed that products were often sold as “locally grown” and that farmers would put their pictures on the labels as well as describe their farming practices. This tended to be a trend in both Saga and Kagawa. Some supermarkets had separate sections specialized in local produce.

In general, the majority of Japanese customers are not yet demanding JAS marked products or going out of their way to look for them. Unless this changes, then farmers have no major market incentive to seek JAS certification unless they want to fill a specialty niche. This is in strong contrast with the US where people rely heavily on certified organic produce sold in supermarkets.

Some farmers had been in organic farming since the start of the movement in Japan in the 1970s. In some cases farmers had a tendency to feel that the government was hijacking the term for organic, “*Yuuki*”, that the farmers may have already been using in their businesses and that the government didn’t really have the credentials to set the standards in the first place. Suezawa Takuro, a non-certified farmer whom I interview in Kagawa in

⁷⁹ Kizuka Interview.

August had the following comments (translated from Japanese) regarding JAS:

Suezawa: There are few people around here who have JAS marks. It's difficult and too much trouble. I don't have it, and I probably won't try for it. Since I am selling locally and as a local farmer, there really doesn't seem to be a need for it. If people just come to my field it's quicker. I just say I'm not using chemicals. There are also certain things allowed within JAS that we don't really consider to be organic farming. The people who set the standards maybe didn't have adequate knowledge. It seems that having a personal relationship and understanding with customers is more important.⁸⁰

What Suezawa said is very similar to what I heard from Tanaka Ippei in Saga Prefecture. From their perspectives, JAS is a marketing tool, and really only has value for those who are selling outside of their locality. In contrast, I observed that people with the JAS mark make take pride in it, while people who don't have it sometimes scoff at it a little or completely disregard it. Suezawa acknowledged that he thought that a JAS mark may make it easier to get certain customers.

While there are varying perspectives on the pros and cons of the JAS certification system, for the most part, the Japanese government has adopted international standards. As noted previously, this is probably out of necessity because a substantial amount of imported goods may be sold on the basis of their being "organic." If the standards of the Japanese government differed from international standards, importing, not to mention exporting of any organic products would become overly complex.

⁸⁰ Suezawa interview.

On the other hand, the government does not appear to have taken a significant role in enforcement of JAS standards in Japan. Enforcement is relegated to the registered certifying bodies, which have guidelines for retracting certification if violations are found on a certified farm.

Not all farmers whom I interviewed were opposed to there being a national organic standard. Some farmers such as Hashimoto Shinji felt that it is a step in the right direction, because in the long term, national level sustainability will depend on ending chemical agriculture. The governments standards may help push agricultural practices in this direction. If consumers become more conscious of organic JAS, and profits start to fall within JA, one can rest assured that JA will form a branch for marketing Organic JAS marked products. To the present, JA has invested little effort in promoting organic agriculture. Aside from the one Hyogo JA branch that was acting as a registered JAS certifying body, I was unable to find any other examples of the JA embracing the Organic JAS certification system. The most obvious reason is because as an organization they profit from marketing chemicals to farmers. One can only speculate as to how long it will take for organic farming to be on a scale where JA is forced to switch over because of market pressures. As suggested earlier, the pressure could come from organic produce imported from abroad. While Japanese consumers habitually trusted domestic produce first, fears over food contamination through radiation have already caused many people to alter their consumption

habits.

One thing that many farmers commented on was that JAS standards were lower than their own and that many of the farms certified by JAS were not “as *yuuki*” as they should have been, especially in the first few years. They stated that the standards were too flexible regarding the transition of fields from non-organic to organic. Furthermore the application of certain types of fertilizers was apparently allowed that most organic farmers would not consider legitimate.⁸¹

Those farmers who have embraced JAS tend to market their produce through mail order, and sell more to cities such as Tokyo. In urban settings, people have to select produce from super markets and are in most cases disconnected from their food sources. For those who are conscious of this, and who are concerned about chemical agriculture or about food contamination, they may opt to purchase “food box” shipments from trusted sources. In these circumstances, JAS may serve as a way to satisfy individual concerns. Since the locality of the produce is always included, JAS consumers can be reassured that they are not only purchasing organic produce, but that they are getting it from areas far removed from radiation contamination or other pollutants. Tanaka Kinji added that: “In Tokyo there are a lot of those sorts of people who want to eat (JAS) organic produce. It may be partially connected with status.”⁸²

⁸¹ Tanaka Ippei, interview by author, Mitsuse, Saga Prefecture, July 8,15,16, 2011.

⁸² Tanaka Kinji, interview by Author, Mitsuse, Saga Prefecture, Japan, July 12, 2011.

Tanaka Kinji was not the only farmer who made a comment about organic product consumption possibly being considered as an issue of status. Tanaka Ippei, an uncertified organic farmer whom I interviewed in Saga Prefecture also expressed a dissatisfaction of selling to people who were buying for status. He was more interested in providing safe local foods to customers who he had a direct relationship with.

According to Kizuka, Organic JAS standards are stringent, but the story is different depending on the source. According to Tanaka Kinji during our interview, Japan's Ministry Of Agriculture, Forestry and Fisheries (MAFF) was under pressure from America to import Organic produce into Japan, influencing the government's writing of standards for organic farming.⁸³ In addition, some of the unpopularity of Organic JAS; why it has not been embraced by many organic farmers is because it requires a lot of paperwork and documentation for farmers. Tanaka Kinji stated:

Even for me, I feel this way. If farmers spend the day out in the sun from morning till night, working hard, and at home, they have a cup or two of sake, they don't feel in the mood to write at that point. And the MAFF says keep a diary of your work. Be certain to document everything. It's not a good match. So farmers argue with them. This is all influenced by the WTO (World Trade Organization) I think. As of 3 years ago, roughly 86 % of the organic products in Japan were from abroad. That means that only 14 % were grown in Japan.⁸⁴

It is evident that the Organic JAS certification has created two distinct groups of organic farmers. For those that are certified they tend to ship their produce to cities and also

⁸³ Tanaka Kinji Interview.

⁸⁴ Tanaka Kinji Interview.

tend to operate on a larger scale. Local distribution, though still conducted by JAS certified farmers is not the exclusive procedure for distribution. Direct subscribers from far away order vegetable boxes from JAS certified farms and supermarkets in cities purchase JAS certified produce far more readily than non-certified organic produce. For those farmers who are non-certified organic producers, the primary means of distribution is to local customers and local stores.

CHAPTER V

SAGA'S ORGANIC FARMERS, EDUCATION AND FOOD CONSCIOUSNESS

1. Non-certified Organic Farmers of Mitsuse

Onodera Makoto is an organic farmer whom I was introduced to by Ogata Machiko the principal of Ogi elementary. Onodera met up with us at Guza restaurant. Guza doubled as an educational center for teaching about traditional living through crafts and cooking and was a center for the "Slow foods Movement."⁸⁵ Guza is located in Mitsuse Town, Ogata's previous assignment as elementary school principal. As principal, she had worked with Onodera Makoto and Tanaka Kinji, establishing a large field adjacent to Mitsuse Elementary School as a designated organic farming plot. The purpose of the plot was to educate children about organic gardening, and also to provide vegetables to be used in their school lunches. In spite of Principal Ogata's transfer to Ogi, the Mitsuse Elementary organic farming project has been maintained and Onodera Makoto and Tanaka Kinji continue to volunteer their services.

Onodera is and organic poultry farmer. Several days after our initial meeting at Guza, he gave my family and me a tour of his farm. I interviewed him in Japanese regarding the details of his operation and about how he had come to be an organic farmer.

⁸⁵ The Slow Foods Movement, which is an international movement is focused on bringing communities together through healthful traditional living and cooking. Branches operate at local levels and conduct various activities such as foraging wild vegetables and making foods using traditional methods. More on Slow Foods is discussed in the Education section of this paper.

Onodera was raised in Tokyo and was a “Salary Man”⁸⁶ He was transferred to Fukuoka City in Fukushima Prefecture in Kyushu 11 years ago. At that time, he and his wife tried an organic farm workshop and became very interested in changing their lifestyle and becoming farmers. Onodera was interested in making a seamless transition to farming and researched how to go about doing this without jeopardizing his financial stability and without excessive struggle. The objective was to create a more positive lifestyle for his family and himself. He found a very good model for organic chicken farming and was able to design a large sophisticated coup and have it constructed in advance (see figure 2).

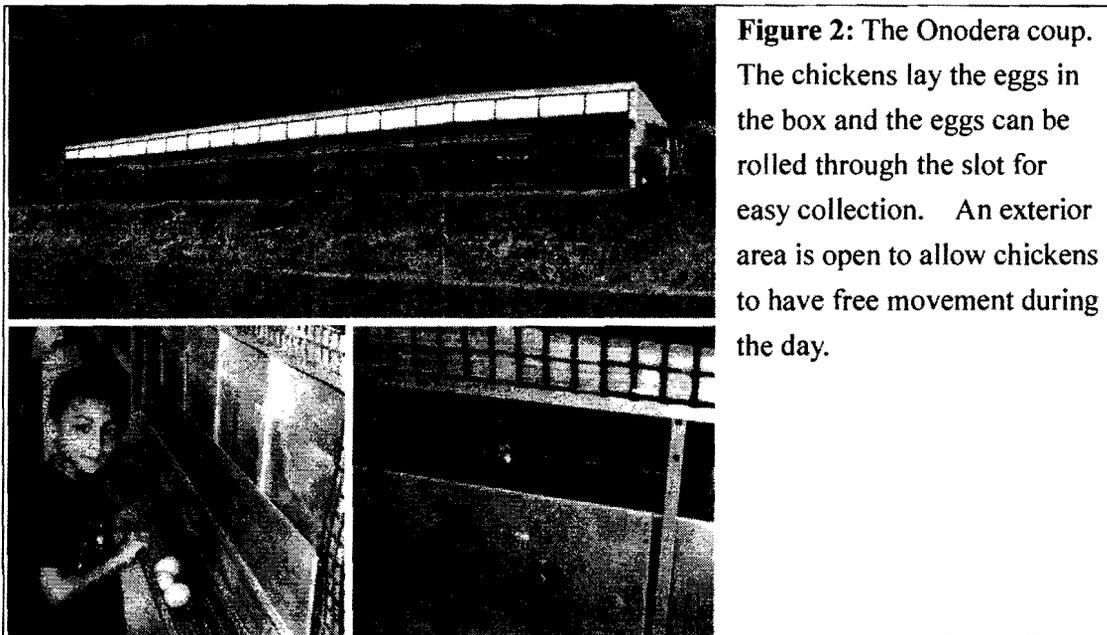


Figure 2: The Onodera coup. The chickens lay the eggs in the box and the eggs can be rolled through the slot for easy collection. An exterior area is open to allow chickens to have free movement during the day.

In addition he constructed a carefully and elegantly designed farming house not far from the coups enabling him to work from his residence. Starting funds came from savings

⁸⁶ “Salary Man”- The Japanese term describing a salaried employee of a company. There are significant cultural nuances conveyed in this label as well as a particular kind of life-style. It is implied that a salary man is typically a life-time employee who works day in and day out with their company at the center of their lives, but also that they have a stable position with at least a middle-class income.

and from loans. According to Onodera, the transition was smooth and raising chickens is comfortable and rewarding work. In addition to harvesting eggs, he also grows rice and vegetables in several fields, owned or rented, surrounding his house. He explained that he was able to grow crops successfully from relatively early on because he made friendships with neighboring farmers and was able to learn from them and cooperate with them.

Onodera's comfortable and well planned transition into farming contrasts with many of the other farmers I met, who said that the first several years were really tough in terms of getting their operations be productive enough to make a living. In most cases, during the first couple of years, farmers had to gain experience through which they adjusted and adapted to the specific conditions on their properties as they learned how to be efficient and when to perform various tasks for better results.

Onodera raises about 600 chickens and gets about 400 eggs per day. Most of the vegetables that he grows are for personal consumption and to feed his chickens. The chickens are fed a low cholesterol diet in order to produce low cholesterol eggs. They are fed organic corn, rice husks (the outer protein rich portion of the rice), soybeans, barley threshings, and powdered oyster shells (for calcium). Also, he makes a mix of ground organic vegetable leftovers.

I must say that Onodera's chicken operation was the most sanitary and orderly that I have ever seen. It was odor free and the chickens were healthy and vibrant. Mr. Onodera

delivers eggs directly to customers who are subscribers. He also sells to restaurants that specialize in healthful foods. I was given the impression that he is selective about who he sells to and is able to make a comfortable living while having adequate time for leisure and family activities. One of the restaurants that he sold to was called Taima California Kitchen, which we visited shortly before departing Fukuoka.

I was invited to join Onodera and his wife for a simple lunch of eggs, toast, and jam with some jazz music in the background. In addition to his interests in farming Onodera was interested in traditional culture and the arts. He was a practitioner of a traditional Japanese martial art called *iaido*⁸⁷ and also went to Fukuoka city each week to practice *aikido*⁸⁸ with his children. In addition, his children practiced music and other extracurricular activities.

Following lunch, Onodera introduced me to another organic farmer named Tanaka Ipei. Tanaka introduced himself, and we exchanged *meishi*. He showed me that the characters in his name meant “peace in the fields.” He had spent a year in the United States traveling and studying. He spoke English well and we mixed languages in our conversation between Japanese and English. I interviewed him and he agreed to have me back on Friday to do a bit of volunteer work and then to go with him to a Saturday conference in Fukuoka.

⁸⁷ *Iaido*- is a form of traditional Japanese swordsmanship and meditation, involving drawing a sword and performing choreographed movements for perfect mastery.

⁸⁸ *Aikido*- is a modern martial art derived from traditional samurai combat arts such as jujitsu and swordsmanship. Aikido teaches non-aggression and uses an adversary’s force to blend, control, neutralize and harmonize. Because of the cooperative nature of practice, it also becomes a form of meditation and positive social interaction.

Tanaka was 32 years old at the time of our interview and had been farming for about seven years. Originally he had been in computing, but left it for the idea of a healthy lifestyle that would benefit society. He did an apprenticeship with another organic farmer before taking on his own farm. He rented land and a large old farm-house with his fiancé. She was a masseur and also farmed with Tanaka.

Tanaka Ippei was not JAS certified but rather marketed to about 50 local clients. He delivered 80-100 vegetable boxes per month at an approximate cost of 2000 Yen per box. Typically, the boxes included 10 types of vegetables, which varied by season. While he had a low rent and saved a substantial amount each month, there was no income during the winter.

Most of his clients were by word of mouth (*kuchikomi*.) According to Tanaka, when he first started farming, he had to be very humble in requesting that people buy his produce, because the quality was very amateurish. It took a few years of gaining experience and polishing his skills as a farmer to bring the quality of his produce to a professional level.

Because his customers were all local, the distribution of his produce was based entirely on trust and personal relationships. Some of his clients weren't even specifically interested in organic produce, but bought from him because they were happy to get fresh local produce from a neighbor. Tanaka had no ties to JA and was not interested in JAS certification under his current model. He had some philosophical as well as some practical reasons for not seeking JAS certification. First of all, JAS certification cost too much money. Tanaka's

model involved conducting business with a low overhead. His rent was low and he produced most of what he ate. He was able to bank most of his income during the growing season, but during the winter there was virtually no income. For Tanaka, part of not using chemicals was for health and safety. The other part was that not using chemicals was much less expensive in both the short and long term, therefore it was a sensible decision just to enhance the soil fertility through proper agricultural practices and do organic farming.

Secondly, his relationships with customers were all about trust. They did not require a JAS mark and were not concerned about its significance. Finally, Tanaka-san preferred to meet his own standard than to have to be certified by someone else.

Tanaka was not satisfied about the idea of people buying organic products for what he perceived to be name value, fashion, or status. He just wanted people to feel happy and thankful for good, safe food that they received. Therefore, having a direct relationship with customers was meaningful because of the closeness between producer and consumer.

2. Fukuoka Organic Agricultural Association Conference

Tanaka Ippei was the secretary in the Fukuoka Organic Agricultural Association (FOAA, *Fukuoka Yuuki Nougyou Kenkyuu Kai*). On my next visit to his house on the afternoon of Friday, July 15, he was very busy. He did some plowing on a tractor and I took some photos and recorded his work (figure 3). I helped with some net removal and weeding. Although he uses a tractor, most of the planting and harvesting is very labor intensive.

Tanaka had to participate in a volunteer fireman's corps that evening so I waited for him and prepared a survey for the following day. When he got back, Tanaka was and I quickly translated and typed up the questions for the survey.



Early the next day, we drove to Fukuoka City for a study conference of the Fukuoka Organic Agriculture Association (FOAA). There were about thirty participants including several foreign volunteers. An American and his Japanese wife, along with an Argentinean gentleman were WWOOF (World Wide Opportunities on Organic Farms) volunteers and had come to the study session along with the farmer whom they were working for. There was also a volunteer from Hokkaido and another from Taiwan. The diversity of participants illustrates that organic farming is very much an international movement, and disproportionately attracted foreigners. The meeting was relatively small overall with only 30 participants.

The meeting began with a tour of fields in which farming methods and conditions were discussed. Specifically, there was discussion of contamination of the organic rice fields by adjacent fields in which chemicals were applied by other farmers. This was an ongoing

theme which I observed as a concern of many of the farmers whom I visited throughout my field-study. One of the most common issues was that water being used to irrigate the fields was generally runoff water, or reservoir water stored in *tameike* (reservoir ponds) that tended to pick up all sorts of household chemical contaminants along the way. There was little that could be done about this other than to try to locate farms where direct mountain runoff was available. In terms of dealing with chemical contamination by adjacent farmers, there were a number of legal strategies for dealing with this, but in general it was a difficult situation because of the social implications involved with confrontations with neighbors or taking them to court.



Figure 4: Above, participants at the *Fukuoka Yuki Nougyou Kenkyuu Kai* in a round table discussion.

After that various people expressed their opinions about organic farming issues and problems with converting people to organic farming. Then each of the 30 or so participants introduced themselves and specified their particular role in organic farming. I took an exact count, but the number seemed to fluctuate throughout the day (figure 4.) Some participants were just there to learn more and were raising *kateisaien*, conducting home-scale vegetable gardening.

We distributed our survey with an explanation of the purpose for it and asked people to return it after lunch. The Survey results were a bit less detailed than I had hoped, but reveal

a few things about the participants of the FOAA conference. Based on chart one (Figure 5), it can be seen that there are 9 farms with 20-21 participants in organic farming being represented. While there were some young members, the majority were people in their 50's and older. There was a wide range of years of experience for those practicing farming. These ranged from just starting out, to 30 or more years of farming. Notably, none of the farmers were members of JAS. There are many ways to interpret this. One of them could be that the FOAA, does not attract JAS participants. It may also be the case that some of the farmers were too small scale to join JAS, while others of the farmers had been farming so long that they had reliable business relationships and did not need to label their products as JAS. For now, this will be left to speculation.

Following are two charts, figure 5 and figure 6, which summarize the results of the organic farmer survey/ questionnaire. Chart 1, figure 5 shows the populations of the farmers in the survey. Most of the farms were small family farms. According to the surveys, the field sizes ranged from 2 to 908 *tan* (about .5 acres to 224 acres.) 1 *tan* is approximately 1,000 square meters.⁸⁹ I suspect that one or more of the farmers miswrote the amount of property that they farm because 200 acres of rice-fields farmed by an individual is virtually unheard of in Japan. At most two part time employees assisted with work on the farms.

⁸⁹ A *tan* is a traditional Japanese measure of field size. 1 *tan* is equal to 1,000 square meters. There are 10,000 square meters per hectare. One hectare equals 2.47 acres. There are approximately 4047 square meters per acre or 4.047 *tan* per acre.

Figure 5: Fukuoka Yuuki Nougyou Kenkyuu Kai (FOAA)⁹⁰ - July 16, 2011 Survey- Chart 1

Farmer #	Years farming	years organic	JAS Certified?	Farm size and produce distribution and reason for organic farming	# of People participating in farm/ relationship/ Age/gender	Affiliations and activities With organic community
1	35	23	No	40 Tan of rice , Transitioned from low chemical use to no chemical use	1 male, age 57, full-time	FOAA/ JOAA
2	1/2	1/2	No	6.5 Tan /1.5 Tan, Inspired by Fukuoka Masanobu, <i>One Straw Revolution</i>	1 male age 36, 1 female age 33 (married couple) full-time	FOAA/Monthly study meet-ups
3	3	3	No	1.6 tan, 0.5 tan various vegetables (for personal consumption) inspired by NHK program on organic farming	1 male age 67, 1 female age 65 (married couple) full-time	FOAA
4	15	15	No	8 Tan, sought freedom from chemicals	Family + Part timer 1 female, Age 56, full-time 1 male, age 60, part-time (married couple above) 1 female, age 56, part-time	None
5	17	3	No	9 tan, 4 tan, 8.5 dropped out of corporate system (of agriculture?) and gradually began to think organic farming was a better way.	Family + Part timer 1 male, age 61, full-time 1 female, age 52, part-time (married couple above) 1 male, age 30, part-time	OAAA (Oita prefecture), Another group in Oita
6	20	20	No	100 Tan, 85 (wants to return to farming of old)	1 male	FOAA
7	43	10	No	2 tan, 22 tan pairs (want to make safe rice and food)	1 male, age 61, 1 female, age 59, 1 human, age 33, all full-time (married couple + child above) 1 female, age 65, 1 female, age 68, (both part-time employees)	FOAA
8	60		No	42 tan Almost died from agricultural chemicals	1 male age 84, fulltime, with other?	Training successor
9	36	10	No	900 Tan, 8 Vegetables, pairs Doesn't want to expose themselves to chemicals	1 female, age 58, 1 male, age 63, 1 male, age 33, all full-time (Married couple and eldest son)	No comment

⁹⁰ FOAA-author's abbreviation for Fukuoka Organic Agriculture Association –*Fukuoka Yuuki Nougyou Kenkyuu Kai*.

Chart two (figure 6) shows the approximate distribution of marketing methods for each of the farms. Of all of the farmers, only one marketed to JA. Since JA does not typically

Figure 6: Fukuoka Yuuki Nougyou Kenkyuu Kai (FOAA) - July 16, 2011
Survey- Chart 2, Marketing Clients by % of Produce

Farmer #	Direct pickup, delivery/shipping to homes	Sell at farmers markets	Sell to stores	Have a store at house	JA Market	Other
1	80%		20%			
2		100%				
3	Personal consumption only					
4		90%	10%			
5	20%	20%		20%		
6	10%					90%
7	30%	30%	10%	10%		20%
8	100%					
9		10%	40%	10%	30%	

distinguish between the growing methods of the farmers, the consumers would not know that the food is organic. By not participating in JA, it implies that the remainder of the farmers had an adequate base of loyal clientele to distribute to. The majority of the farmers were involved at least in some capacity in conducting direct delivery or having customers pick up vegetable boxes. This vegetable box distribution is call “*takuhai*.” *Takuhai* usually coincides with some manner of *teikei*, with a cooperative relationship of farming between the producers and the consumers usually using the structure of a community supported agriculture (CSA). More is explained on this topic in Chapter VII.

Following lunch with the FOAA we went to see *Aigamo nouhou* (duck-rice farming

method) at the farm of Furuno Takao, the originator of the farming method. *Aigamo* farming, which has spread in Japan and also in some parts of South-East Asia is a form of organic agriculture/permaculture in which ducks have been integrated into the eco-system.⁹¹ They are kept in flocks in the rice-fields by means of electric wires powered by a solar battery. The ducks eat bugs, and receive supplemental feed, and their excrement serves as fertilizer. They are protected from weasels, mongooses, fox, crows and other predators by means of fencing, as well as the electrified wires, which send intermittent pulses every few seconds. The crows are thwarted by black string crisscrossed like netting. They apparently stay away from the duck-rice fields because the string impedes their flight ability and discourages them for fear of getting entangled. The tour was very interesting and culminated in a dinner at Furuno's house in which we ate a variety of dishes all created with food grown on the farm. Duck was included. Furuno gave me an English copy of his book, *The Power of Duck*,⁹² which laid out the history and methodology of the *Aigamo nouhou*. The book was written in collaboration with a famous Australian permaculture innovator named Bill Mollison. I had the opportunity to speak with a number of different people who had various roles in the organic farm community. Amongst these were farmers, activists, anti-nuclear protesters, educators, and marketers. Furuno also had interns living at his house or visiting.

⁹¹ Permaculture- refers to agriculture, designed to be functionally and ecologically sustainable on a permanent basis by integrating symbiotic relationships between the component factors; crops, other plants, animals and the environment.

⁹² Furuno Takao, 2001, *The Power of Duck*, Sisters Creek, Tasmania, Australia, Tagari Publications, publishers for the Permaculture Institute since 1979.

Overall, I was given a sense of the significant breadth and cultural substance of the community and again, the sense that organic farming is a movement which attracts people with a positive set of ideals. I was also given some exposure to the broad range of farming methods utilized in organic farming. Following the dinner, Tanaka Ippei dropped me off at the train station at Hakata and I took the train back to Saga.

3. Tanaka Kinji - *Shizen Nouhou* and Less is More

Kanamaru Yasutaka was a retired high-school agriculture teacher. He was also the father of Sachi, the close friend of Akamatsu Takako. Sachi and her family had evacuated from an area near Tokyo affected by 3/11/2011 and was staying with her parents. On a visit to her house, Sachi's father provided me with an interview, and a tour around his garden. He was not an organic farmer, and persisted that organic farming was really for a very special sort of person. He showed me some plants that had been sacked by bugs (figure 7) and said that it was very difficult to prevent it without some kind of pesticides. But he was interested in "limited" chemical usage (*gennouyaku*).



Figure 7: Caterpillars feasting on Kanamaru's vegetables. ⁹³ (He wasn't that upset about it.)

Kanamaru agreed that organic farmers, with about double the labor of other farmers

⁹³ Permaculture- refers to agriculture, designed to be functionally and ecologically sustainable on a permanent basis by integrating symbiotic relationships between the component factors: crops, other plants, animals and the environment.

could be successful, but that in most cases farmers had to make a living and support their families, and that most wanted to do that without working to exhaustion or living in poverty. Kanamaru kindly offered to bring me to visit Tanaka Kinji, his good friend, whom I had heard about from nearly everyone, but had not yet met. I came back on Friday and Kanamaru drove me to Tanaka Kinji's house.

Tanaka Kinji was a diminutive but spry man in his early 70s. His house was a log-house, "built to last a hundred years," by a builder whose work could be found in various places throughout Saga. I interviewed Tanaka Kinji in Japanese at his home in Mitsuse on July 12, 2011. The interview was followed by a tour of his fields. His method of farming was *shizen nouhou* following the model of Kawaguchi Yoshikazu.⁹⁴ Tanaka laughingly said that he had "graduated" from organic farming and was now an ardent natural farmer. The first field of his that we visited was on an upper terrace above several terraces farmed by other farmers. Tanaka's field was very diverse. It had a wide variety of crops intermingled with one another, emulating natural growing conditions as much as possible. However,

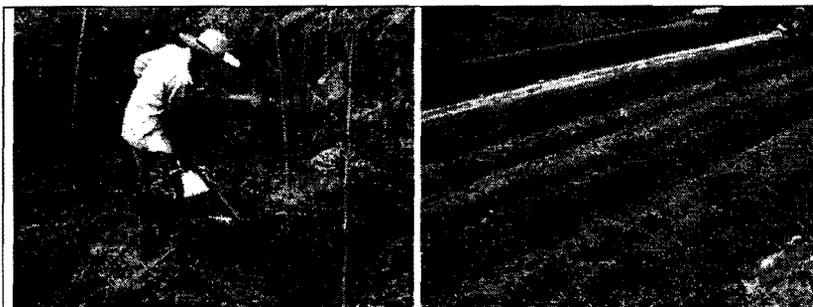


Figure 8: Tanaka Kinji Sensei in his *shizen nouhou* field and a view of his neighbor's *kindai nougyou* field on the terrace below.

directly below his area was a broad terrace in which the farmers were both mechanized and

⁹⁴ Tanaka Kinji interview.

applied chemicals (figure 8). This apparent contradiction is common-place in Japan. Because of limited space, organic farmers are often forced to farm directly next to farmers who apply chemicals. As noted previously, even the organic JAS certification system has leeway for this concern. This was a significant issue of concern which was discussed at the FOAA conference. In general farmers attempt to resolve this through careful field selection when possible, but accept that there will be some inevitable contamination.

When Tanaka started as a professor at Saga University, the Agricultural Department was doing *kindai nougyou* (lit.: current era farming, with the use of chemicals implied.) Tanaka started organic farming at the university as a small side branch within the department in 1992 after reading Fukuoka Masanobu's book *Shizen Nouhou Wara Ippon No Kakumei* (The One Straw Revolution).⁹⁵

Now that Tanaka is retired he has shifted from organic farming to *shizen nouhou* and farms full time. He explained that the main difference between *shizen nouhou* and *yuuki nougyou* is that in *shizen nouhou* no tilling is conducted and the preservation and careful use of natural relationships within the ecosystem are emphasized. In addition there is no mechanization, chemical application, and no tarps or greenhouses are used. Produce is only grown in its natural season.⁹⁶

Tanaka explained that though organic and chemical-free sustainable farming practices

⁹⁵ Fukuoka, Masanobu, 1978, *The One Straw Revolution*, New York: The New York Review of Books. [Original Japanese title: *Shizen Nouhou Wara Ippon No Kakumei*, Shinjusha Publishers, Tokyo.]

⁹⁶ Tanaka Kinji interview.

are essential to the future of Japan, farmers are influenced by short term economics. He explained that people want instant gratification and want to squeeze as much produce out of their properties as possible. Furthermore, because Japan has a high level of humidity the climate is conducive to an increased amount of weeds come in, insects, and plant diseases, making *yuuki nougyou* in Japan challenging for people. However proper farming and effort and wisdom can overcome these challenges:

Sun and wind are medicine for plants. If you do it that way, you don't need chemicals. Even if there is a typhoon, and the plant may bend sideways, it still comes back up afterwards. For those people using the chemical fertilizers, if the plant falls over in a storm, it doesn't come back up. They grow fast but they are weak. So the point is if a person is greedy to grow too much, it doesn't work. When I look around, I see people growing egg plants and other vegetables, but I give about twice as much space for each plant as they do. People shouldn't be greedy. Eating is the same. Eat until you are 8/10 full (Japanese expression- *hara hachi bun me*). If you eat too much you get sick. *Taru wo shiru* (knowing how much is the right amount). This is the problem in Japan, people don't know how much is the right amount or that *less is more*.⁹⁷

Tanaka's farming was for his family's personal consumption. Excess beyond what he and his wife eat is shipped to family members in Oita. He pointed out that in the past Japanese agriculture had always functioned at a single family level. In addition he sometimes sells to a store called "*Genki Bata*" (healthy field.) He farmed about ten different small areas including plots that are .1 ha and .05 ha and then even smaller plots in various areas.⁹⁸ Tanaka's farming, though full-time was a non-profit endeavor, but it demonstrates

⁹⁷ Tanaka Kinji interview, "less is more" or "*taru wo shiru*" was a phrase that Tanaka used to explain his philosophy and translates closely into: knowing how much is enough.

⁹⁸ Tanaka Kinji interview.

that individuals and in particular retirees can be relatively self-sufficient and conduct sustainable farming that nurtures the environment rather than depleting or contaminating it.

After showing me his fields, Tanaka Kinji brought me to visit a man named Nakamura Katsuhisa- A JAS certified farmer. He was a retired town hall worker and ran a successful mail-order organic farming business. He shipped a large amount of his produce to major cities. While we were there he served a blueberry beverage and cake, of course made from his own gardens. It was clear that he placed a great amount of value on the JAS mark and felt pride to be one of the few farmers in the area that were certified. It was also a matter of practicality. It was specifically useful for his business model.

Nakamura did not use machines such as tractors. He performed his planting by hand. His method of farming was somewhere between organic farming and *shizen nouhou*. He used hay and other mulching in order to cover over soil surrounding crops. This prevented drying out and also reduced the amount of weeds that grow in. Nakamura used to till the soil, but adjusted to the no-till method. He follows the advice of Tanaka Kinji Sensei and avoids erosion and disruption of the soil ecology as much as possible. On the other side of the field he was using vinyl tarp in a similar way, to prevent the overgrowth of weeds, soil desiccation, and erosion.

As can be seen, both Tanaka Kinji and Nakamura were serious full-time farmers. One might argue though that they had the luxury of living on pensions and so that there was

no pressure or necessity to produce on a scale to make a living. On the other hand, these two men's status as retirees turned farmers places them in the category of the majority of farmers in Japan. Most are part-time farmers and the average age of farmers is estimated to be in the mid-seventies and rising. If it is the case that most farmers don't rely on farming for survival or livelihood, then argument can be made that this majority of farmers should be willing and eager to conduct chemical-free and ecologically sustainable farming.

5. Educating Children and the Public About Organic Farming and Healthy Foods

In Mitsuse Town, Tanaka Kinji and Onodera volunteered to conduct an organic farming education project on a good-sized plot alongside of Mitsuse Elementary School. As noted earlier, this was established in concert with Ogata Machiko when she had served as principal there. The project had been highly successful and continued to include the children at the elementary school in the gardening project while providing some of the produce used in their school lunches.

On June 28th, a couple of days after my arrival in Ogi Town, Kimura Hiroshige, the vice principal of Ogi Elementary School, showed me around the school grounds of where my son was enrolled for the summer. There were a number of organic gardening projects that he was conducting with the children in the school and the school had several sizable patches for growing vegetables and melons. The objective was to give the children a hands-on experience growing some of the food that they ate and to show them

that chemicals are not needed in the equation (figure 9).

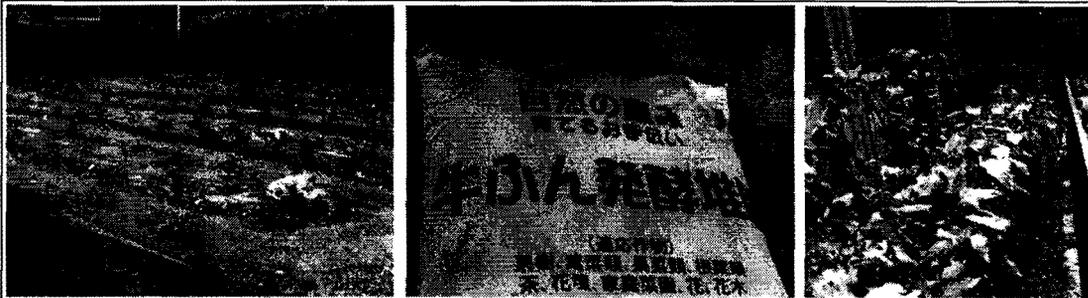


Figure 9:

1. Ogi Elementary School –chemical free farming plot.
2. Organic cow manure
3. Ogi Elementary School - vegetables growing between the classrooms and playground.

The projects utilized commercially manufactured organic fertilizers. Kimura discussed his own farming activities briefly. His family produced rice and vegetables on a part-time basis. They were not strictly chemical-free in their farming. Kimura introduced me to the concept of *teinouyaku* and *gennouyaku*⁹⁹ which were terms to describe more conservative or reduced levels of use of chemical pesticides and chemical fertilizers. The current trend of the JA was to recommend *teinouyaku* approaches to farming. He explained that the first purpose for his farming was to produce food for family and that the scale of their marketing was limited. He also had a small organic *kateisaien*.¹⁰⁰

I was given a tour of the Saga University Agricultural Experimental Station fields by a pair of professors, one of whom was a young lady professor recently back from the United

⁹⁹ *Gennouyaku and teinouyaku*- low level use of *nouyaku* (chemical pesticides/ fertilizers). These two terms are the current trend that JA is promoting as their safer approach to farming.

¹⁰⁰ *Kateisaien* - a home vegetable garden for personal consumption. This term is significant because it distinguishes professional agriculture and part-time professional agriculture from people growing with non-commercial interests. In general the scale is smaller as well.

States. They guided me around the fields of the experimental station. The organic field that Tanaka Kinji had established was not receiving much attention. The rest of the fields were *teinouyaku* (low chemical usage agriculture). The purpose of the experimental fields was really to teach agriculture, and the emphasis was on current trends. There were also some other agricultural experiments going on regarding manure development and some livestock related experiments. What I gleaned from this visit was that organic agriculture was not the central theme of sustainable studies at the university, but rather that they were looking at better ways to produce safe and sustainable manure production practices.

6. Slow Foods and Restaurants in the Organic Farming Community

Though there was not really a well unified organic farming network in Saga, places that have a well established network on Kyushu are Kagoshima, Kumamoto. Tanaka Kinji and Onodera Makoto were both involved in varying capacities in the “Slow Food” community group. Tanaka explained that Slow Foods is a response to fast foods and processed foods. For example, they make fresh tofu or *natto* (fermented beans) from scratch.¹⁰¹ In addition, Slow Foods participants harvest and gather their own seeds and conduct seed exchanges in order to avoid being forced to purchase GM seeds. GM seeds are designed so that the next generation won’t produce fertile seeds.¹⁰²

Slow Foods was founded in 1989 and is an international grassroots movement with

¹⁰¹ Tanaka Kinji interview.

¹⁰² Tanaka Kinji interview.

the objectives of connecting people with the direct production and appreciation of their own food through community activities that include foraging and making foods using traditional methods. Slow Foods activities are intended to be a form of socializing, a leisure-time activity, and to counter the negative impact of fast food.¹⁰³

One other significant networking activity for organic farmers in Saga is a *Kyushu Chiku* (Kyushu area) conference for organic farmers called “*Yuuki nougyou no saiten*” (*Yuuki Nougyou* marketing conference) held every year at the end of January. The purpose is so that people conducting organic farming can make a healthy living.¹⁰⁴

On one visit to Tanaka Kinji he took me to eat at a “mountain vegetable forage”

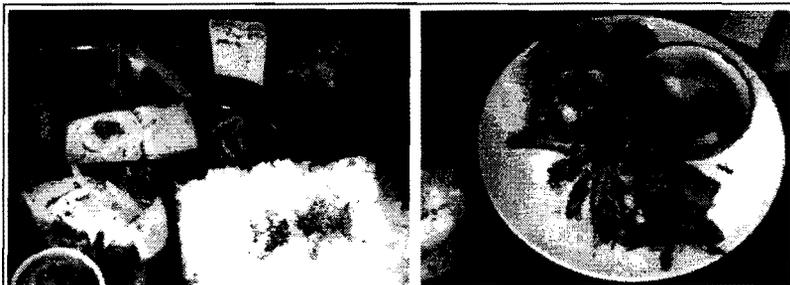


Figure 10:
Wild vegetable forage restaurant lunch dishes. As with most restaurants in Japan, presentation is a major part of the meal. (photos by author)

restaurant (figure 10). He brought some of his own vegetables for them to cook. The restaurant was newly built. It had been subsidized because the

restaurant had been required to relocate for the purpose of constructing a large dam and reservoir project. The restaurant was now located on a mountainside with a scenic overlook of the reservoir. The restaurant was on a major road that was an important artery to get from

¹⁰³ Slow Foods, website, <http://www.slowfood.com>, accessed March 12, 2012.

¹⁰⁴ Tanaka Kinji interview.

Fukuoka to Saga, so there was plenty of through traffic and potential for customers. The restaurant was not specifically *yuuki*, but emphasized healthful herbal foods gathered directly from natural areas. It represented an example of restaurants providing specialty foods to a demographic of Japanese consumers interested in a natural life style. Organic specialty restaurants are an important device for marketing organic produce and also for raising public awareness about a more healthy option as consumers.

After lunch, which was one of the numerous excellent meals I enjoyed during the summer, we drove around to the opposite side of the reservoir and visited a “*michi no eki*” (roadside station rest area). There was a vegetable market there with a large number of locally grown products available. That *michi no eki* was not the first or the last that I visited during the summer. Each of them had a grocery market and in most cases they emphasized marketing local fruits and vegetables and other local food products. Each farmer put their personal labels with descriptions of their locations and farming practices. I was not able to locate any JAS marked products at the *michi no eki* although Tanaka Kinji mentioned that sometimes they could be purchased there.

Prior to departing Saga the Akamatsu family and my family visited a high end organic restaurant called “Taima California Kitchen” (figure 11), which had been recommended by several different people. The chef had studied cooking in California. All of the ingredients were purchased from organic farmers, but not specifically JAS certified farmers.

Onodera Makoto was one of the farmers who supplied food to the restaurant. The



Figure 11: A sample of dishes from Taima California Kitchen, a gourmet organic specialty restaurant in Saga City, Saga Prefecture. (photos by author)

cooking was
spectacular though
far above my normal
price range. The
restaurant catered to

people looking for fine dining as well as those specifically seeking organic cooking. I visited several other variations on this sort of restaurant, (though none even half the price) while I was in Kagawa. Part of the appeal of restaurants in Japan is the cosmetic aspect of foods. There is an expression that “Japanese people eat with their eyes.” This means that people first enjoy the beautiful appearance of a meal before enjoying its freshness and delicious taste. Because food taste and quality is such an important and central aspect of Japanese culture, it is surprising that there has not been a more rapid movement towards organic farming urged on by both producers and consumers.

CHAPTER VI KAGAWA'S AND HYOGO'S ORGANICS

1. On to Kagawa and Organic Honey

My experience in Kagawa was very different from my Saga experience. First of all, since Kagawa Prefecture is my wife's home prefecture, and a place where I previously lived for more than three years, I had a large number of friends and social connections. While this enhanced my network for finding organic farmers, I also was occupied by a variety of other commitments, but still managed to commit quite a few days to meeting farmers and exploring organic farming in Kagawa.

My wife's house is located in a residential area on a mountainside in Kagawa town, in Kagawa Prefecture. The mountain overlooks a valley that consists of a good number of rice fields and other fields. In fact, the layout of the neighborhood follows closely the old model of orchards and vegetable gardens in the upper areas with rice fields concentrated in the lower and central areas of a valley. My wife's house is the second to last house on the highest street on the mountainside. There were far fewer houses on the block when she was a child. Adjacent to her house, where the street ends there is a persimmon orchard that has been there her whole life. A short, but steep, five minute climb up a poorly maintained dirt path would bring you to a small shrine at the top of the mountain above the orchard.

In our neighborhood, there is a friend of mine named Inoue Isamu who is a retired officer in naval branch of the *Jieitai*, Japanese Self-Defense Force. Inoue has a colorful sign

on his house, with a picture of a bee on it advertising his organic honey business. I interviewed him on August 8th and 9th about his farming. He raised a large number of honey bees. He brought me to a field that he was renting where he had some of his hives stored and showed me a bit about his operation. Inoue had planted several large rows of sunflowers for his bees to pollinate. He said that the bees would actually fly very long distances of a few kilometers, but would return to the hive at night. Inoue had a very charming relationship with his bees, and treated them as pets, actually petting some with his finger tips. When he asked me if I would like to pet them, I declined, stating that I felt a bit uneasy because of my allergy to stings. He said he was allergic too, but that the stings from the honey bees were so minor and occasional that they didn't concern him.

There was a bigger threat, the *suzume-bachi* (sparrow wasp), which resembles in size and form, but not color, the burrow wasps that we have here in NJ. I have seen a similar wasp in Estonia, known as a "horse killing wasp." The *suzume-bachi* kills the honey bees, and Inoue said that his bees would come to him for protection if *suzume-bachi* came around. The honey bees apparently recognize human voices as well, and so according to Inoue, it is a cooperative relationship and the bees are actually aware of him as a protector. They certainly seemed comfortable with him touching them.

In addition to a profitable organic honey production business, Inoue also makes persimmon vinegar (*kakisu*). There are different grades of it and some of the vinegar is

actually used as an insect deterrent on crops. For Inoue, the use of vinegar as a pest deterrent is in the experimental phase, but he claims to be having some success. The vinegar mixed with pepper oil (*karashi abura*) has enough acidity and hotness to act as an irritant to insects. The *Kakisu* itself is not strictly organic since Inoue purchases discarded persimmons from farmers (the unsold ones that are over-ripe or poorly formed) to produce the vinegar. Many of the farmers use varying degrees of pesticides and fertilizer. Inoue in his own orchard had divided the trees into two groups and used his experimental organic approach on one group and chemicals on the other. His intention was to compare the results and come up with some amount of quantitative data to see which approaches to cultivation yielded the best results.

The scientific side of things was as much for the purpose of satisfying his curiosity as for the practical purpose of innovating newer and better methods of cultivation. Inoue san appears to be a man who thoroughly enjoys his retirement.

As discussed previously, there are a large number of non-commercial farmers, who are retirees who conduct farming. Many of them farm in accordance with their interests and temperaments. As can also be seen, some retirees turn to farming as a second career and engage in various degrees of marketing and distribution. For those farmers who are not JA or JAS certified, they provide for a substantial amount of produce that cannot be accurately quantified or documented. While many part-time farmer retirees sell portions of their

produce, it is customary to share with friends and neighbors, and so there is a large amount of high quality food which is distributed amongst friends and family outside of the “grid” of the markets or government statistics.

2. Suezawa Takuro: His Way of Organic Farming and Marketing

I interviewed Suezawa Takuro an organic farmer in Kokubunji Town, and Takamatsu City, Kagawa Prefecture on August 16 and 19, 2011. He was introduced to me by my friend Uematsu Akiko. Suezawa was 33 years old at the time of the interview and was in his third season as an independent organic farmer. He was not JAS certified. He had attended a college for agriculture in northern Japan but in those days had not taken school very seriously. After graduating he had traveled internationally for a year. He was in the United States in 2001 when 9/11 happened. He spent several years working as a caregiver for senior-citizens at a healthcare facility but eventually opted to go to live and study for a year at an organic agricultural specialty school in central Shikoku called *Tosa Shizen Juku*. The director of that school is affiliated with the Japan Organic Agricultural Association (JOAA, *Yuuki Nougyou Kenkyuu Kai*.)

Suezawa explained his business model to me and all about his life as an organic farmer. He conducted chemical-free farming on his family property. He focused on the vegetable farming while his father focused on rice. He would bag, label, and deliver fresh produce to a variety of markets throughout Takamatsu City and its outskirts. He mentioned that there

were a fair number of vegetable stores in Takamatsu selling organic produce and that many can be located them using the internet. In the more rural areas there were less stores specifically selling organic produce.¹⁰⁵

Suezawa went to Takamatsu almost every morning for deliveries, and on Sundays, collaborated as a member of “*Yuuki no Sato*,” a group of organic farmers, to hold a farmers market at a place called Sun Port Takamatsu (more on this is discussed at the end of this chapter.) He mentioned that he would like to eventually do *takuhai* box deliveries, but that he was not yet stable enough to support that structure.

Suezawa agreed to meet up with me in Takamatsu and take me along with him on his delivery runs at the end of the week. That Friday, the main place that we went to was a specialty supermarket called *Kasuga Suijin Marche* (figure 12).



Figure 12:
Kasuga Suijin Marche, a supermarket near Yashima in Takamatsu, Kagawa Prefecture specializing in JAS produce, uncertified chemical-free and low chemical usage produce. (photo by author).

It was an upscale supermarket specialized in organic and *teinouyaku*

products primarily by local farmers. It catered to people who were specifically conscious of purchasing high quality foods and who were willing to spend a bit more than at a regular supermarket. When we arrived at the place, Suezawa and I spent some time bagging, sealing, and labeling his vegetables. Then we put them out on the shelves according to

¹⁰⁵ Suezawa interview.

vegetable type. The way that it worked was that the store would take a surprisingly small commission on all vegetables sold through his label. It was all computerized with bar codes, and so each farmer got exactly the right amount of money for whatever produce of theirs was sold. Suezawa introduced me to Tsukuni Yukari, the wife of the store owner and I was given a tour. Tsukuni explained that the store had been in operation for several years and had expanded in the last two years. In recent months, customers had increased, possibly because of concerns about food safety.

After completing his delivery at the Marche, we ate at the restaurant that was attached the Market. It specialized in organic food. It was another great meal, and reasonably priced for the exceptional quality.

There were several more of these kinds of stores in the main *shoutengai* (roofed shopping street) in central Takamatsu. One of the shops was a satellite store of the *Suijin Marche* Market. Suezawa delivered to four or five shops in Takamatsu as well as one



Figure 13: At left is a local super-market where Suezawa dropped off some of his vegetables for sale. At right is an organic vegetable specialty store in the Takamatsu *shoutengai* (shopping street) that Suezawa delivered vegetables to. (photos by author)

restaurant, and another couple of supermarkets on the way back to his farm (figure 13).

At Suezawa's farm, we did some field work

together as we talked. We harvested potatoes and weeded under his plants. He liked to wear *jikatabi*, the traditional separated toe shoes worn by construction workers to provided surer footing. The shoes were also associated with ninjas. Suezawa said that the *jikatabi* greatly improved his productivity and agility in working in the fields. We used *kama* (a sickle) to cut the grass and weeds. Suezawa didn't want to pull the weeds by the roots, because he considered them a part of the ecosystem needed to maintain healthy fields. Rather, he wanted to create conditions favorable to his crops and had in this, his third year as a farmer become successful enough to have a profitable year. He spread the hand cut weeds directly under the crops to maintain a cover over the soil and as green manure. Also, he was interested in maintaining the insect balance:

Suezawa: As long as you maintain a good balance between *ekichu* (useful insects) and *gaichu* (harmful insects), you usually don't have a particular problem with one crop being damaged. When people apply a lot of (chemical) fertilizer, it creates an environment that is susceptible to an increase in *daichu*.¹⁰⁶

I recalled Tanaka Kinji mentioning the exact same thing and saying that insects were attracted to plants that grew quickly because of chemical fertilizers. Tanaka Kinji said:

“They are delicious for insects, but not for people.”¹⁰⁷

Suezawa described his style of farming as somewhere in the spectrum between organic farming and *shizen nouhou* and stated that gradually he was moving towards *shizen nouhou*,

¹⁰⁶ Suezawa interview.

¹⁰⁷ Tanaka Kinji interview.

but that the process had to occur through his personal experience in order to be viable for his business success.

Suezawa relied on a variety of organic fertilizers, some of which he purchased.

While he and his father produced their rice without chemicals (*munouyaku*) he acknowledged that water from *tameike* and drainage was not clean water and therefore had an impact on the quality of his rice. In spite of the challenges to organic farming, Suezawa was very optimistic about the future. He stated that when he came back to Kagawa after having been away from it for so long he was finally able to appreciate Kagawa and summarized his philosophy:

The weather is calm and easygoing so the people are calm and easygoing. The scenery may not be as beautiful as in some parts of Japan, but it's a good place to live. Do you know *Gokuraku*? It means *Raku ni Kiwameru*, - to live in a way that is comfortable. Not to be lazy or that sort of thing, but to find enjoyment in the things you do. If I find something enjoyable, it's not difficult or painful. It's a (positive) attitude about life. I think that is what Buddha was trying to teach. My feeling is: *Shizen ni kansha, subete ni kansha*, (Gratitude for nature, gratitude for everything.)¹⁰⁸

I asked Suezawa if there had been any consideration of forming a corporation for organic farming. He told me that while the organic farmers tend to be friends, they also tend to prefer to be their own boss, partially because they each have different approaches to farming. I then asked about taking on part-timers or teaching apprentices organic farming in order to expand the number of organic practitioners in the future.

¹⁰⁸ Suezawa interview.

Suezawa: In Kagawa I have some organic farming friends who graduated from the same school in Kochi as I did. There are about 4 of us. Anyway, I figure if I can pull this off in 5 years, then I can start to teach newcomers and young people. Maybe they can do it in three years. Maybe I'll be ready for that in three more years (he says with simultaneous skepticism and optimism).¹⁰⁹

Each Sunday Suezawa participated in farmers market at Takamatsu Sunport, called Sunport *Marche* with 4 other chemical-free farmers in a group named “*Yuuki no Sato*” (The Original Home of Organic). Only one of the people in the group has a JAS mark, but since “*yuuki*” is used only used within their name label rather than labeling the food as *yuuki nousanbutsu*, so far they have not gotten a complaint from the government. Suezawa’s personal label “Green Smile” shows that he uses no chemicals (figure 14).

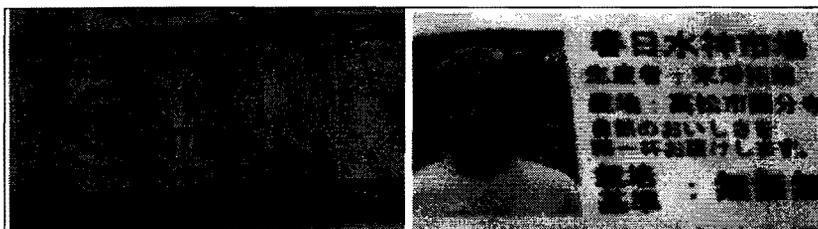


Figure 14: Suezawa Takuro’s personal labels for his chemical-free produce, reflecting his positive character. (photos by author)

The final time that I met Suezawa for the summer was at his Sunday farmers market, *Marche* at Sunport Takamatsu. Sun Port Takamatsu was on the waterfront of the Seto Inland Sea. It had been under construction when I was living in Kagawa from 1999 -2002. It was intended to be a popular, modern, and upbeat shopping district, with a community oriented bent towards the arts and entertainment. On the Sunday that I visited, it was near the end of

¹⁰⁹ Suezawa interview.

August, a few days before returning to the United States. There were public dance and music performances with a lot of people gathered to watch. Worthy of note, there was a very good organic burger restaurant called “Freshness Burger” where we ate lunch.

Out in the sun, Suezawa and a good-sized group of other farmers had their tables and pavilions set up. I purchased some vegetables from Suezawa as an *omiyage* (souvenir/visitation gift) for a relative in order to spread the organic word a bit. Suezawa said:

There are at least 10 organic farmers in the area. We exchange information and help each other out. Rather than feeling like we are competing with each other, for the most part, we are interested in health and the environment, and so we have something of a mutual support network. My teacher in Kochi teaches that there is a need for this mindset or *yuuki nougyou* can’t advance.¹¹⁰

I also had the opportunity to speak with several of the other participating organic farmers. As I had seen in Saga and Fukuoka, they were young and old. One member of the group was a retiree who had turned to full-time organic farming. A few others were Suezawa’s friends from his organic farm school. What I found especially important about the Sunday farmers market is that it gave the public a lot of exposure to the concept of organic farming. When I asked various people in Kagawa about organic farm stores in Kagawa, they inevitably directed me towards the Sunday Sunport Marche. This was true even of people not specifically interested in organic farm produce. This means that at least peripherally, many people were becoming aware of the availability of *yuuki* produce. Even

¹¹⁰ Suezawa interview.

my friend Nori, from Hyogo prefecture (in Honshu) had directed me towards this particular market. The word was spreading.

One more organic restaurant that we went to was in the Youme Town Mall in Kagawa. It was an organic food buffet luncheon with a very wide array of delicious dishes. What struck me as significant about the restaurant was its central location in one of the major shopping malls in Kagawa. It was one of the upper end eateries in the mall. The place was packed at lunch time with all sorts of people, young and old. It had been strongly recommended by my martial arts teacher Kaneiki Iwao.

3. Sakaguchi Nori: The Organic Farmer Who Inspired this Thesis

One of the most poignant segments of my trip was a day long driving excursion to Honshu to visit my long-time friend and organic farmer Sakaguchi Nori. I was first introduced to Sakaguchi through his wife Tomoyo when I visited Japan in the summer of 1997. I visited him a number of times when I was living in Japan and he played *matsuri* music (festival music) on a bamboo flute at my wedding party in 2002. Sakaguchi had always wanted to live close to nature and to do positive things for society. The son of two school teachers, he is a very talented and intelligent man. He is a self-trained musician of traditional Japanese music. He used to perform at taverns and at various venues for extra money, but these days, he does it more for charitable events. He speaks Chinese, which he studied in college, and speaks impeccable English, though for the first time, when I saw him

this summer he preferred to speak Japanese to me. I have always considered my visits to Sakaguchi's farm, which is located in a wonderful rural valley in Hyogo prefecture, to be a rare escape. On many occasions, I enjoyed going there and volunteering. I especially enjoyed our countless carefree conversations about just about anything. This time though, I had an agenda (this research), and Sakaguchi and I both had very limited time.

I had met Sakaguchi's wife, Tomoyo when she had been at Rutgers University in New Jersey in 1996-97 for ESL study before pursuing graduate studies in Utah in American Studies. She ended up specializing in Native-American research, and during the summer of 2011, was completing her Ph.D degree, focused on issues of the impact of radioactive contamination on reservation inhabitants in New Mexico. Since she had been involved in this research for the past ten years, and had developed an expertise on the subject, Tomoyo was now being consulted by the government of Japan regarding possible impacts resulting from the Fukushima nuclear plant disaster and radiation that was spreading in the Tohoku region of Honshu.

On the day that I visited, Tomoyo was wrapping up a several day camp event in which a group that she collaborated with was hosting evacuees from Fukushima and the surrounding areas, and doing activities to entertain children and families from there.

Sakaguchi informed me that they were attempting to do was to assist with the relocation of organic farmers from Fukushima. Fukushima had been a major agricultural

region and had been a very significant area in the organic farm movement prior to the 3/11 disaster.

I interviewed Sakaguchi in his garden in Sasayama in Hyogo Prefecture on August 22, 2011 and recorded it on my camera. I discuss some of the topics that came up during the interview here. The full transcript is included in the appendix. Also, more of Sakaguchi's commentary is in Chapter VII discussing the Fukushima nuclear disaster.

Sakaguchi Nori's farm is distinctly on the verge of the wild and is very much embedded in nature. His vinyl covered greenhouses are directly at the base of the mountain, located on a terrace above his house. In the first greenhouse there are rows of tomato plants, cabbage and *hakusai* (Chinese cabbage).

Sakaguchi started organic farming in 1994 because of an interest to do work that involved dealing with environmental problems and to create a place where various people could gather to talk, play music and enjoy life. He also started music around that time. Initially he was into British and American rock, but then shifted towards Japanese traditional folk music, playing *taiko* drums and flute. He sometimes plays at homes for elderly people and just yesterday had played at schools for the handy-capped.

For Sakaguchi, the good points of organic farming are that within his daily home life, he can work and produce healthful food for his family. He enjoys the freedom that comes with being his own boss and working in nature. He does most of the farming himself, which

can be very demanding, and would rather that the whole family participated in organic farming like in farming families of the past. He estimated that his annual income was about 4,000,000 yen per year, (about 51,282 at 78 yen/US dollar exchange rate of 2011) which was adequate for his family's needs because they don't have to put out money for food.

Sakaguchi's business model involves delivering food boxes to subscribers. He sells to individual households because they are more stable than his past experiences with restaurants and stores. Private households don't tend to suddenly increase or decrease although, with the nuclear power plant disaster, the number of customers has begun to increase. While his income has not gone up so much, it is more stable and secure. Sakaguchi estimated that he delivers to 90 to 95 households, some of whom only get vegetables once per month. Also he prices the boxes depending on what he put in and based on the specific produce and the gross weight. Typically the price of a vegetable box ranges from between 1500 yen to 2500 yen per household. Sakaguchi does it this way because he does not feel comfortable charging too much if it's a bad crop-year and there are less vegetables.

It occurred to me that this style is different from the *teikei* subscriber method where consumers pay an annual membership fee and produce is divided according to available produce. That is why it is called Community Supported Agriculture (CAS). (More on this in the section with Hashimoto Shinji). In Sakaguchi's model he reduces the producer's security and favors the consumer. The consumers have no real investment in the success of

the farm, but they reap the benefits.

A significant potential problem for Sakaguchi is that the people who have bought his produce for the past 15 years are now in their 70 and 80's. He does not have many customers in their 30's and 40's. If the older people become lost, Sakaguchi is concerned about not having a new generation of customers.

In Sasayama in these past ten years and particularly in these past 5 years the number of young organic farmers has greatly increased. In the winter the organic farmers gather and exchange information relating to farming methods and marketing for example. Sakaguchi stated that though organic farming is received openly by society, it is still difficult to make a living at it because of the skill it requires and the need to find a niche in the market.

Sakaguchi pointed out that certified organic produce is only about .1 percent of all the vegetables produced in Japan. He explained that the Japanese government is trying to increase the scale of farming but that for Japan it is limited by available land. Though growing high quality produce and exporting it would be good to make progress in, the international image of Japan's produce as a whole, even that which is still safe, has collapsed in the aftermath of the nuclear power-plant disaster. Sakaguchi believes that Japanese organic farmers need to increase their farm sizes to 20 to 40 hectares if functioning as a company, and hiring people and do it on a larger scale though that model is still uncommon.

4. Hashimoto Shinji: The Organic Teikei Movement

My family and I left Sakaguchi Nori's house around 6:30 PM and drove up to meet a man named Hashimoto Shinji whom we had an appointment to meet at his house at 8 pm. Sakaguchi had given me an introduction, and had stated that Mr. Hashimoto was someone that I needed to meet in order to have my research complete. After our meeting, I certainly understand why Sakaguchi felt this way. Finding Hashimoto's house turned out to be challenging in the darkness and heavy rain, and no one was there when we arrived at a large log-house with a broad roofed porch. I was just beginning to wonder what to do, when Hashimoto and his eldest son (who was a young man) arrived back at the house in their truck. It was about 8:30 or 9:00 pm. He invited me in.

I interviewed Hashimoto Shinji in English at his house in Ichijima Town in Hyogo Prefecture on August 22, 2011. Following I discuss some of the issues of our conversation. The full transcript for the interview is included in the appendix. Other portions of the interview are discussed in Chapter VII on the nuclear disaster

Hashimoto started organic farming 23 years ago in the village of Ichijima. He is the vice president of the Hyogo Organic Agricultural Association, which promotes organic agriculture in Hyogo prefecture and is also one of the oldest registered JAS certifying bodies accredited by the Japanese government. He was also a coordinator for the International Federation of Organic Agriculture movement (IFOAM Asia), which had regional groups in

America, Europe, and Asia to promote international organic standards. In addition, Hashimoto is board member of JOAA which is a network of organic agricultural organizations covering all of the prefectures of Japan. Ichijima is important in the history of organic farming because it is the place where *Teikei* movement in Japan started. Hashimoto explained that in Japan, organic agriculture started with community supported agriculture:

It was around 1975 when there were lots of food contamination accidents like Minamata disease or pcb problems. And consumers at that time were really worried about the food that their kids eat. There was a professor named Yasuda from Kobe National University and he started a food pollution seminar at the Kobe Student Youth Center. Many wives came to study about it, and they decided that they needed to find safe foods for their kids. They started to look for farmers who produced the food without any pesticides or chemical fertilizers. In Ichijima there was a retired agriculture teacher named Mr. Kondo who wanted to start doing organic agriculture. Kondo thought that growing organic produce would only be a solution when a real understanding was established between producers and consumers.¹¹¹

This formed the basis for the *teikei* model. Initially thirty producers came up and there were about 500 consumers in the beginning and it soon reached to 1000.¹¹²

According to the *teikei* model, consumers are required to eat the seasonal boxed vegetables based on whatever is produced in the fields. They cannot order the vegetables by what they like because it can impede the producer from doing a good rotation.

Twice per year planning meetings between the producers and consumers are held to discuss the prices and crop types for the next year. The consumers organize a board which

¹¹¹ Hashimoto interview.

¹¹² Hashimoto interview.

participates in the meetings.

Initially organic *teikei* farmers made a living exclusively by selling directly to consumers. However, after the JAS certification system was established, the marketing dynamic changed. Some companies contracted with organic farmers for seasonal box schemes and set up a home delivery box system (*takuhai*). The contents of the box come from all over the nation, providing a greater variety to consumers. Supermarkets also started to sell organic produce, enabling consumers can choose whatever they want in the supermarket. As a result consumers started to leave the *teikei* system making it so that many farmers can not currently rely exclusively on the *teikei* model and have to try varied marketing practices.¹¹³

This chapter has discussed a variety of different marketing schemes for organic farmers. For those who were well established such as Hashimoto Shinji and Sakaguchi Nori, variations on the *teikei* subscriber system and vegetable box deliveries were effective models for distribution of produce. In Saga prefecture, Tanaka Ippei also utilized this model. In the cases of Tanaka Ippei and Sakaguchi Nori, both run their businesses independently of larger organizations and so their subscriber models tend to have more flexibility that when a producer is part of a larger *teikei* consortium of multiple farms and farmers. For Suezawa Takuro, who is still in the earlier stages of developing his organic farming business, he has relied on some of the more recent developments such as marketing through markets that

¹¹³ Hashimoto Interview.

specialize in organic and chemical free produce and those supermarkets that purchase from local consumers. For Inoue Isamu the organic honey farmer and Onodera Makoto the organic egg farmer they were specialized and so their business models varied substantially from that of organic vegetable farmers. Inoue distributed his honey to a wide range of stores and individuals purchased directly from him while Onodera had a number of direct subscribers and delivered to specific stores and restaurants. His eggs were in demand. Suezawa and Nakamura Katsuhisa the JAS certified farmer from Mitsuse both participated in farmers markets and Nakamura also shipped to subscribers and stores in various cities. While there is overlap between the marketing methods of JAS certified and non-certified farmers, it seems that within the market, each type of farmer needs to find their niche.

CHAPTER VII

THE IMPACT OF FUKUSHIMA RADIATION CONTAMINATION ON ORGANIC FARMING AND FOOD SAFETY

1. Government Regulations for Levels of Radiation in Food

It is necessary here to briefly describe the events of March 11, 2011, because of its relevance to the topic of agricultural sustainability and food safety in Japan. To give a sense of scope: on March 11, 2011, Japan experienced a 9.0 magnitude earthquake, its most powerful yet measured, followed by an enormous tsunami in which approximately 23,500 people were killed, or are still missing.¹¹⁴ The tsunami traveled up to 5 km in land. The earthquake and tsunami combined destroyed 187,000 homes and displaced hundreds of thousands of people. It also caused massive damage and chemical contamination along 561 square kilometers of coastline from Aomori prefecture to Chiba prefecture.¹¹⁵ That damage will take many years to mitigate.

On top of that, the Fukushima Daiichi Nuclear Power Plant, which was in the direct path of the tsunami, underwent a meltdown of all three of its cores and released radioactive materials into the environment. At the time of the accident, four other regional nuclear power plants successfully shut down as safety measures kicked in.¹¹⁶ The main radioactive contaminants released into the environment were iodine-131 (with a half-life of 8 days),

¹¹⁴ Bird, WA, Grossman E, 2011, "Chemical Aftermath, Contamination and Cleanup Following the Tohoku Earthquake and Tsunami" *Environ Health Perspectives* 119:a290-a301. <http://dx.doi.org/10.1289/ehp.119-a 290>, accessed, April 16, 2012.

¹¹⁵ Bird.

¹¹⁶ World Nuclear Association, updated April 14, 2012, "Fukushima Accident, 2011", http://www.world-nuclear.org/info/fukushima_accidednt_inf129.html. accessed, April 16, 2012.

caesium-137 (30 year half-life) and caesium-134 (2 year half-life).¹¹⁷

The *Asahi Shimbun* (Asahi Newspaper) reported on October 15, 2011 that “radioactive strontium was found in a street gutter in Yokohama, appearing to confirm that the radioactive isotope has spread far beyond districts close to the Fukushima No. 1 nuclear power plant.”¹¹⁸

A search for articles on the internet indicates that radioactive isotopes of various kinds have been found in many areas of Honshu including in the Osaka bay seabed. In most cases, testing has focused on radioactive iodine and cesium.

There is also widespread concern about food contamination and radioactive isotopes have been found in many different foods from Fukushima and the surrounding prefectures. Trace amounts of radioactive cesium and iodine 131 as well as strontium were even found in milk in Hilo Hawaii as early as late April, 2011.¹¹⁹

While various steps were taken by the Japanese government to evacuate the most affected areas and to restrict potentially contaminated agricultural products from being marketed to the public, the scope of testing has not been thorough enough to determine if all agricultural products from affected areas are contamination free. Furthermore radiation hotspots have in many cases popped up far removed from the accident as a result of weather patterns carrying radiation clouds long distance.

¹¹⁷ World Nuclear Association.

¹¹⁸ Sato, Yoshikazu, October 15, 2011, “Radioactive strontium found in Yokohama gutter” *The Asahi Shimbun*, <http://ajw.asahi.com/article/0311disaster/fukushima/AJ2011101514691>, accessed April 20, 2012.

¹¹⁹ Cole, William, April 27, 2011, “Strontium-89 from Japan found in Big Island milk,” *Star Advertiser* (Newspaper), Honolulu: http://www.staradvertiser.com/news/breaking/Strontium-89_from_Japan_found_in_Big_Island_milk.html?id=120842814, Accessed April 20, 2012.

The government has set guidelines to determine what is safe for human consumption based on what it considers “acceptable” or “safe” levels of radiation contamination in foods. However, the standards in Japan were substantially higher than other countries in the US and European Union. More disturbingly, the Japanese government quietly altered the standards on March 17, 2011 thus greatly increasing the acceptable level of radiation in food products.

William Milberry, a foreign resident in Japan living in Kyushu, has created a series of news commentary documentaries concerning radiation contamination, food safety, and the anti-nuclear protest movement following 3/11/2011. He has carefully researched and cited his sources, and has provided an excellent explanation regarding government policies and regulation on radiation levels in food. As per his explanation, “the Becquerel is a unit used to measure radioactive contamination in substances.... and is the number of atoms that radioactively decay and emit radiation per second in a certain amount of a substance.”¹²⁰

Following are brief excerpts from his video “Becquerels and Japan’s changing “safety standards for radiation in food and water.”

Recently something a little bit disturbing has come to light. It seems that the Japanese Health, Labor and Welfare Ministry very quietly changed the Japanese safety limits for these substances (cesium 131, 137, and iodine 131) in drinking water and other foods on March 17. To my knowledge there was no public notice of this. When we heard of the limits for the first time, it was the new limits that had just been changed. Now there is a document on the ministry website detailing these limits. Please have a look.

¹²⁰ Milberry, William, July 30, 2011, “Becquerels and Japan’s changing “safety standards for radiation in food and water,” Aluminum Studios, YouTube account, 14min 59 seconds, video clip, <http://www.youtube.com/watch?v=oc6FPIK1VaY>, accessed April 21, 2011.

The screen switches to the documents (Figure 15 and 16). Milberry continues:

This is the document downloaded from the Japanese ministry website. You can see its dated March 17,... 2011. And this text down here basically states: concerning the March 11, 2011 Tokyo Electric Fukushima Daiichi Nuclear Accident, the Prime Minister is issuing a declaration of a state of emergency. And it goes on to say that to stop food born sanitation dangers, for the purpose of attempting to protect citizens health, based on food hygiene law, some new temporary regulations will go into effect...¹²¹

Figure 15: The first page of the letter from the Ministry of Health, Labor and Welfare, “*Houshasen Osen Sareta Shokuhin no Toriatsukai ni Tsuite*” (About the Consumption Standards for Radiation Pollution Affected Food, (author’s translation)) dated March 17, 2011.¹²²

別紙

食安発0317第3号
平成23年3月17日

各
都道府県知事
保健所設置市長
特別区長

殿

厚生労働省医薬食品局食品安全部長

放射能汚染された食品の取り扱いについて

平成23年3月11日、東京電力株式会社福島第一原子力発電所事故に係る内閣総理大臣による原子力緊急事態宣言が発出されたところである。

このため、飲食に起因する衛生上の危害の発生を防止し、もって国民の健康の保護を図ることを目的とする食品衛生法の観点から、当分の間、別添の原子力安全委員会により示された指標値を暫定規制値とし、これを上回る食品については、食品衛生法第6条第2号に当たるものとして食用に供されることがないよう販売その他について十分処置されたい。

なお、検査に当たっては、平成14年5月9日付け事務連絡「緊急時における食品の放射能測定マニュアルの送付について」を参照し、実施すること。

Milberry

then proceeded to

examine the

specific quantities

of each radioactive

substance shown in

the document that

were counted as

safe levels for

consumption. In

addition to cesium

and iodine 131, levels of uranium and alpha emitting plutonium were listed as can be seen on

the second page of the document (Figure 16). Milberry compares current Japanese safety

¹²¹ Milberry

¹²² Ministry of Health, Labor and Welfare (MHLW, *Kousei Roudou Shou*), 3/17/2011, “*Houshasen Osen Sareta Shokuhin no Toriatsukai ni Tsuite*” PDF, <http://www.mhlw.go.jp/stf/houdou/2r98520000015582-img/2r9852000001559v.pdf>, accessed 4/22/2012.

levels with those prior to the Fukushima disaster:

According to simplyinfo.org (<http://simplyinfo.org/group/?p=1897> (as seen 7/26/2011) before March 17, the Japanese safety limit for radioactive iodine in drinking water was 10 Becquerels per liter. As you saw, this new document increases it to 300 becquerels. That's a 30 times increase. As you'll recall on that first introductory page, it says that these regulations were being done to protect people's health. So apparently, increasing the amount of exposure that a person can have in their drinking water by 30 times to radioactive iodine is protecting people's health. Radioactive cesium also had a limit of 10 becquerels prior to March 17th. It has been increased 20 times to 200 becquerels per liter "in order to protect people's health."

Figure 16: Page 2 "Houshasen Osen Sareta Shokuhin no Toriatsukai ni Tsuite" ¹²³

The column to the left lists the type of radioactive isotope: 1. Iodine 131, 2.Cesium, 3.Uranium, 4. Plutonium and other alpha radiation emitting isotopes. The middle column lists the types of food and drinking liquids for each isotope. The column on the right shows the number of bacquerels (Bq/kg) rated within the safe limit for human consumption for each of the product types.

別添

◎飲食物摂取制限に関する指標

核種	原子力施設等の防災対策に係る指針における 摂取制限に関する指標値 (Bq/kg)	
放射性ヨウ素 (混合核種の代表核種： ¹³¹ I)	飲料水	300
	牛乳・乳製品 (注)	
	野菜類 (根菜、芋類を除く)	
放射性セシウム	飲料水	200
	牛乳・乳製品	
	野菜類	500
	穀類 肉・卵・魚・その他	
ウラン	乳幼児用食品	20
	飲料水	
	牛乳・乳製品	100
	野菜類	
	穀類 肉・卵・魚・その他	
プルトニウム及び超ウラン元素 のアルファ核種 (²³⁸ Pu, ²³⁹ Pu, ²⁴⁰ Pu, ²⁴¹ Pu, ²⁴² Pu, ²⁴³ Am, ²⁴⁴ Am, ²⁴⁵ Am, ²⁴⁶ Am 放射能濃度の 合計)	乳幼児用食品	1
	飲料水	
	牛乳・乳製品	10
	野菜類	
	穀物 肉・卵・魚・その他	

注) 100 Bq/kg を超えるものは、乳児用調製粉乳及び直接飲用に供する乳に使用しない、
よう指導すること。

According to Milberry, “the World Health Organization recommends 1 Becquerel per liter of radioactive iodine and cesium. Germany has a limit of .5 becquerels per liter and the United States, my country has a limit of .111 becquerels.”¹²⁴ This would suggest that the Japanese post-Fukushima safety standards are extremely high. It is difficult to imagine how this could be in the interest of protecting people’s health.

William Milberry’s analysis of the document corresponds with my own. “Houshasen Osen Sareta Shokuhin no Toriatsukai ni Tsuite” (About the Consumption Standards for Radiation Pollution Affected Food), is still available on the Ministry of Health, Labor and Welfare’s website.

There are a substantial number of frightening accounts (some of which have been documented by newspaper and the press) of individuals marketing produce or fish from contaminated areas. The Japanese government has facilitated this and has taken inadequate measures to insure food safety. In some cases food labeling has been unusually ambiguous, resulting in the deliberate mixing of products from Fukushima Prefecture and other prefectures in the Tohoku region with produce or products from other parts of Japan.

An account that I repeatedly heard from farmers was of a fishing boat bringing contaminated fish from the Fukushima area and entering a port further to the south where they attempted to pass off their fish as from southern uncontaminated waters. Such incidents appear not to be isolated or single occurrences.

¹²⁴ Milberry.

There was extensive evidence of cesium contamination in green-tea leaves from various areas of the Tohoku region, including some exported products. The Japanese government has repeatedly reassured the public that products within the regulated range of radiation contamination described above are safe. Unfortunately most of the available studies suggest that increased exposure to radiation equals increased likely-hood of developing cancer.

There was even a commercial made showing the very happy, healthy members of the popular singing group TOKIO eating all kinds of vegetable products and meat allegedly from the Tohoku region, and making the statement, “*Tabete ouen shyou! Bokura wa kyou mo itadakimasu ne. Higashi nihon to gachiri tsunagatteimasu. Tabete ouen tsuzukemasu.*”¹²⁵ [Let’s eat and show our support! Today also, we receive. We are completely connected with Eastern Japan. We continue to eat and root for (the Touhoku farmers).] It is clear that the intention is to get the public to consume foods by showing popular celebrities doing just that.

One particularly disturbing article from the *Sankei Shimbun* newspaper on March 30, 2012 titled “Contaminated Fukushima Fish Recycled as Food Aid: Canned Fish from Tohoku sent to developing Countries with help of WFP” indicated that:

The Japanese government allocated 1 billion yen in the fiscal 2011 3rd supplementary budget. Using this money WFP, (UN World Food Programme) will purchase cans of boiled sardines and mackerels made in factories in Aomori, Iwate, Ibaraki, and Chiba Prefectures. The cans will be shipped to 5 countries including Cambodia for the use in school lunches. Toshiyuki Kato, parliamentary secretary of

¹²⁵ Food Action Nippon, 6/14/2011, “*Tabete Ouen Shiyou!* “*TOKIO no Minasan*” video clip, <http://syokuryo.jp/new-commercial/2011/06/tvcm-1.html>, accessed April 22, 2012.

the Ministry of Foreign Affairs [No. 3 politician at the ministry] emphasized in the letter exchanging ceremony (with the WFP), “The marine product processing companies in the disaster-affected areas have sustained grave damage, and they are doing their best to resume full operation.”...The top officials at the Ministry of Foreign Affairs explain that measurement will be conducted and that only those products without any worry of safety will be exported so that the baseless rumors that still persist overseas are dispelled.¹²⁶

The article pointed out that “when the Japanese government officials say “without any worry of safety” their safety equals 100 becquerels/kg of radioactive cesium starting April 1, 2012.”¹²⁷ This is the new “safe” level that the Japanese government has opted to reduce the safe level of cesium to. As explained above, it is still far in excess of the safe levels established by other countries. What is equally disturbing is that the Japanese government has now opted to impose its arbitrarily established safe levels on other nations. There is discussion amongst bloggers that both the European Union and the United States Environmental Protection Agency (EPA) have been considering raising the levels for safe exposure to radiation in food since May 2011.¹²⁸

The specific problem for organic farming is that it is supposed to have a zero level of tolerance for contamination, meaning that no traceable level of radiation or other contamination is acceptable. In spite of this, some organic farmers and other farmers from

¹²⁶ Sankei Shimbun, March 30, 2012“Contaminated Fukushima Fish Recycled as Food Aid: Canned Fish from Tohoku sent to developing Countries with help of WFP” Sankei Shimbun, Posted at Global Research.ca, Centre for Research on Globalization, <http://globalresearch.ca/index.php?context=va&aid=30069>, Accessed April 20, 2012 [translation posted with original Japanese text.]

¹²⁷ Sankei Shimbun.

¹²⁸ I have not been able to verify if acceptable radiation levels were changed in the European Union and/or the United States, although the discussion of this is widespread on the internet.

Fukushima and surrounding areas have opted to stay on their farms and grow food.

Furthermore, they are seeking ways to reduce radiation absorption into crops and have been attempting to market their produce both locally and in cities such as Tokyo, claiming that it is safe to eat. Either way, it will be very difficult to correlate cancers with exposure through food distribution because there is virtually no way to keep track of consumers.

Many of the farmers of Fukushima who have stayed behind seem to consider the situation to be their fate, and they consider it their duty to remain on the land and do what they can to restore it for future generations. The problem comes when they impose their decision on the uninformed public. While the farmers are victims, they also see themselves as being vilified for doing what they perceive as right.¹²⁹ A documentary called *Uncanny Terrain*, is being produced to show the stories of the Fukushima farmers. The filmmakers, Ed Koziarski and Junko Kajino began their film on May 27, 2011, and lived in Fukushima with farmers while shooting the documentary. Excerpts of the documentary can be viewed online.¹³⁰ The individual experiences and perspectives of the farmers are very poignant and it is very sad to see what people are going through socially, emotionally, and financially as a result of the radiation contamination. The biggest fear though, for both the Fukushima farmers and those outside of Fukushima, is what the long-term health impact will be for those directly exposed, and for those concerned about exposure through food contamination.

¹²⁹ Koziarski, Ed and Kajino Junko, 2011, 2012, Indiegogo, online video files, *Uncanny Terrain*, <http://www.indiegogo.com/uncanny-terrain?c=home>, accessed 4/16/2012

¹³⁰ Koziarski.

Labeling laws in Japan require all produce to have its origin shown, but some mixing of produce is bound to occur while it is also evident that food labeling practices have become ambiguous, with no enforcement penalties. On the other hand, of the produce that has been tested, there were very limited cases where the produce exceeded the “acceptable” limits.¹³¹ Again, those limits were the greatly elevated limits set by the Japanese government on May 17, 2011. This means that any food even one becquerel below the limit could have been distributed, without any warning to a consumer. The Japanese consumers have been eating radioactive produce at these elevated levels for more than one year now. It was only as of April 2012, that the Japanese government lowered the bequerel limits allowed in food, but they are still far above other countries.

2. A Visit to a Nuclear Power Plant at Genkai with Kizuka Tadamitsu

Kizuka Tadamitsu (The JAS registered certifying body NGO president) took me to a nuclear facility at Genkai in Saga prefecture. He considered the current radiation contamination crisis in Japan to be the most significant issue of food safety in the country and felt that I should see how Japanese power plants operated. During the summer of 2011, all but two of the 54 nuclear power plants in Japan had been shut down and were not actively producing energy for the country. As of May 5th, 2012 Japan shut down its last active

¹³¹ Center For Food Safety, The Government of the Hong Kong Special Administrative Region, revised 4/16/2012, “Nuclear Event and Food Safety, Japan Nuclear Incidents”, http://www.cfs.gov.hk/english/programme/programme_rafs_fc_01_30_Nuclear_Event_and_food_safety.html. accessed April 16th, 2012 [regular monitoring of food test samples and results.]

nuclear power plant so that the country is now nuclear energy free for the first time since 1970.¹³² Japan is now relying heavily on imported energy sources such as petroleum and natural gas, while attempting to increase its use of alternative energy sources. All of the reactors have to undergo environmental catastrophe stress tests to determine if they are safe to turn back on.

Genkai was an interesting location. It had a wind-power plant, a geothermal

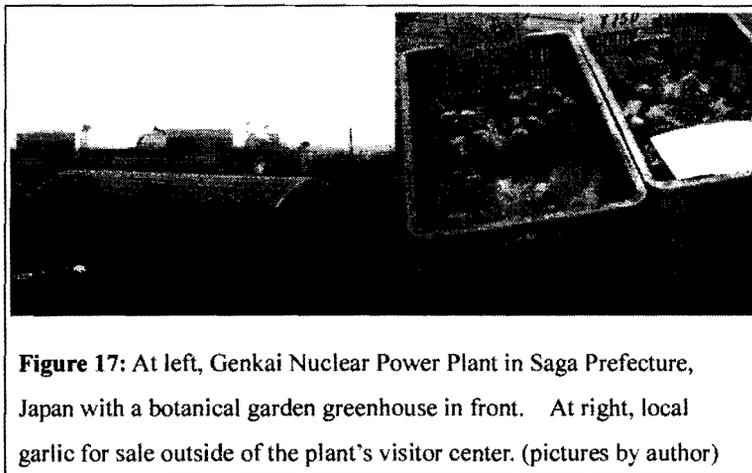


Figure 17: At left, Genkai Nuclear Power Plant in Saga Prefecture, Japan with a botanical garden greenhouse in front. At right, local garlic for sale outside of the plant's visitor center. (pictures by author)

power-plant, and a nuclear power-plant. The nuclear power plant had a museum dedicated to endorsing the efficacy of nuclear-power (figure 17).

It was virtually empty although it was fully staffed. First we received a private viewing of an animated mini-film explaining how nuclear power works and why it is good. It had a very cute digitally animated character as the narrator. I recorded it on my digital camera.

We were then given a private tour in which a young woman gave us a carefully scripted explanation about each of the exhibits which presented the safety and necessity of nuclear energy. Kizuka asked a few pointed questions, (aimed at pulling her from script and out of

¹³² Inajima Tsuyoshi, May 6, 2012, "Japan Nuclear Power Free After Shutdown of Last Reactor," Bloomberg, <http://www.bloomberg.com/news/2012-05-07/japan-nuclear-power-free-after-shutdown-of-last-reactor-table-.html>, accessed May 13, 2012.

her comfort zone,) which the lady answered haltingly and with minimalistic answers. I asked one or two questions about security hazards, but it was very obvious that once things went off script, there would not be any satisfactory answers and that the whole place was a propaganda/ marketing operation. It is not my intention here to show bias, but rather to describe what I extracted from my visit to the nuclear power plant. Part of this was to understand that the nuclear power plant was specifically a public relations device.

Kizuka said as much as we chatted on the way home. At one point there were three people attempting to answer our questions. We stayed polite, with smiles and nods, then thanked them for the informative tour.

There was also a Japanese culture museum with activities for children attached to the nuclear power plant museum. It struck me as bizarre. We skipped that part. Just outside of the museum was a shop for souvenirs selling local vegetables (figure 17) as if to say that the surroundings were entirely safe, with no chance for health hazards. Although the plant was inactive as with all but two nuclear power plants in Japan during the summer of 2011, the tour stated that Genkai was amongst the safest power-plants in Japan. I wondered if they all had similar museums and all say that they are the safest.

We headed to lunch, which Kizuka generously treated me to at a fine sea-side restaurant well removed from the nuclear power-plant. He mentioned that the nuclear power plant actually subsidized school visits and provided buses so that schools could fulfill

their obligatory “*ensoku*”(field trips) and the power plants could disseminate their message to children, and their teachers.

3. Views From Farmers of Saga and Fukuoka

As I asked farmers such as Tanaka Ippei about their views of food contamination and the impact of radiation on organic farming, Tanaka san-stated that he felt that the disaster reinforced his need to be an organic farmer in Saga and to provide safe local food for his customers.¹³³ I received a nearly identical answer from Suezawa Takuro of Kagawa. He added that he felt that more people were now frequenting the stores which specialized in local produce because of their fears and concerns about food and the possible unreliability of produce from other areas.¹³⁴

My friend Akamatsu Takako, and her family (including four children) had evacuated to her home town in Saga from Yamagata prefecture on the north-west side of Honshu because of the instability of the situation after the earthquake, and also out of concern for food safety. As her father owns a restaurant specialized in locally produced carp-sashimi the food security back home in Saga was much more trust-worthy. Her friend Sachi had evacuated back to Saga with her family from Tokyo, abandoning their house there for the major concern of radiation exposure and food-safety. Akamatsu and Sachi are representative examples of

¹³³ Tanaka Ippei interview.

¹³⁴ Suezawa Takuro interview.

significant numbers of Japanese who opted to evacuate from the Tohoku region. However, there are also tremendous numbers of people who did not have the good fortune of having family in safe areas to evacuate to. Also there are those who have opted not to leave.

My good friend Noriko¹³⁵, who lives in Kagawa is the mother of four former students of mine who I taught English to as a JET program teacher from 1999-2002. Noriko is an avid gardener and has a respectable chemical-free *kateisaien* (home garden). Noriko has always had a very reserved and calm personality so as to make a room seem quieter and more still while she speaks. She surprised me when she said that she would trust the government's judgment if it determined that produce from Fukushima or surrounding prefectures was safe to eat. She went as far as to say that she would eat it to support the farmers who lived in those areas. While I found her position disturbing, it somehow seemed to fit with her character and quiet nature.

While nearly all organic farmers that I spoke with had the opposite stance with Noriko, in that they did not trust the government to determine food-safety, many other Japanese likely share the view that Noriko expressed. I would like to point out that Noriko is neither provincial nor naïve. She has a degree from an Australian University, and was involved in volunteering with several international organizations over a number of years as a translator. Her attitude is a matter of sympathy for victims, and trust for her government as well as a sense perhaps to share in national sacrifice.

¹³⁵ disclaimer- out of respect for Noriko's privacy, I have opted not to use her family name.

4. Sakaguchi Nori 's Perspective

Sakaguchi explained that it will take 8 trillion dollars (800 *chou* yen) to mitigate the damage in Fukushima prefecture alone. If you take all the money that the Japanese have, it is (1,500 *chuo* yen), so it is highly improbable that this can mitigation can take place.

Sakaguchi was concerned about the scope of the Japanese government's radiation monitoring being slow and inadequate. He pointed out that in the *Yodo Gawa* River in Osaka, small amounts of cesium have been detected where there was none before indicating that radiation from Fukushima has traveled very long distances. Sakaguchi explained that there was really no way to know which aspects of what the government said were reliable and which things could not be trusted. Accordingly, the only way was to investigate independently, read blogs and communicate online with other individuals and to try to use one's best judgment. Sakaguchi found a statement on the internet by a college professor that particularly frightened him:

In terms of uranium, the amount of radiation released from the Fukushima plant was 20 times that of the atomic bomb dropped on Hiroshima. One year after the bomb exploded only one thousandth of the radiation remained. But the radiation that came out of the (Fukushima) power-plant, I don't know why, but it will only decrease to one tenth after one year. It will only decrease to one tenth.... So based on after one year, Fukushima has 100 times more radiation than Hiroshima. And there was already 20 times as much initial radiation released, so that means that it is 2000 times more radiation than Hiroshima. It's really the worst thing. I really feel sorry for the people of Fukushima.¹³⁶

¹³⁶ Sakaguchi interview.

Sakaguchi explained about the organic camp for evacuees that he and his wife had been helping with.

there was a person who said they would come from Chiba, but they canceled. That person's baby is now five months old. It was born after the disaster, and has had continuous diarrhea all along. And amongst the children in the surrounding area a large number of them get nosebleeds I was told. Before the accident that wasn't the case. And that's Chiba, which is 200 km from Fukushima.¹³⁷

It is evident that for Sakaguchi, the biggest concern is about the extent of radiation contamination throughout Japan and furthermore the degree to which the government has failed to disseminate reliable information and protect the citizens of the country.

Though Hyogo Prefecture is far south of the Fukushima Prefecture and the Tohoku region, because of their personal situations, Hashimoto Shinji and Sakaguchi Nori were far more closely connected to with a social response to the radiation disaster than many of the other farmers that I interviewed and so their positions on the topic are much stronger than that of the other interviewees.

5. Hashimoto Shinji's Statement

Much of what Hashimoto said about the nuclear disaster is consistent with the information already presented in the earlier portion of this chapter. The full transcript of his statements is included in the appendix along with the rest of his interview. A portion of his personal statement is included here:

I am a second generation of Hiroshima atomic nuclear victims. My father was there

¹³⁷ Sakaguchi interview.

in Hiroshima when the atomic bomb hit. And many of his friends suffered from many kinds of disease..... The contamination is really serious. And I'm sure that after five or six years that if these farmers stay there, then they will face the same kinds of problems. But they are not hearing.... What happened in Hiroshima is really scary. 60 years has passed since Hiroshima, but there are still victims. My father has cancer inside his body. He maintains his health, but he maintains his cancer at the same time. My grandfather, he was not at Hiroshima when the atomic bomb was dropped. He went to Hiroshima after the dropping to see what happened to his building. He died at age 51. Maybe after 2 years I will reach that age, and I can imagine how young he was. These are really scary things (he winces). And very sad things.

But organic farmers in Fukushima do not know about this. They just say they want to stay in this village, and protect this village, and they want to continue the organic agriculture. Some of the consumers do not have the correct information and they are supporting the vegetables in Fukushima. I want to stop these things. I think this is the main issue. And it is very serious.

I want to establish a program to move organic farmers from contaminated areas. I think this is the main issue for the organic community; how we can save the organic farmers in Fukushima, and how we can set up the regulations before the next accident.

I am sure that another accident will happen. It happened at 3 Mile Island in the U.S., and next at Chernobyl, then it happened in Japan. -Meaning that it will continue to happen in other areas. When we think about the third world, China, Indonesia, where the government tries to hide lots of secrets, I don't think they can manage the nuclear system. And I am sure that accidents will happen one after another, here and there. We have to stop this too.¹³⁸

Hashimoto's puts into words a fear that has been widely expressed by many Japanese people and amongst many of the organic farmers that I met and interviewed. They fear the distribution of radiation contaminated produce and they fear the long term effects. They sympathize with the Fukushima farmers, but don't want to become victims themselves.

Anti-nuclear activists believe that the existence of nuclear power plants guarantees that future

¹³⁸ Hashimoto interview.

accidents are inevitable and could result in even worse disasters.

As noted earlier in the chapter, as of May 5, 2012 the last active nuclear power plant in Japan was shut down. Though the shutdown of the nuclear power plants was officially a matter of maintenance and testing to determine if they meet safety standards when natural disasters occur, the question is, will the Japanese public allow for nuclear power plants to come back into use?

For this thesis, the Fukushima disaster has been such a significant issue because of the tremendous impact of radiation contamination on organic farming and food safety in Japan. This is especially because the Tohoku region of Japan produced a large amount of Japan's agricultural produce. 65% of the Tohoku region is primarily agricultural and it accounts for about 25% of Japan's domestic rice production.¹³⁹ It is very hard to assess the real extent of the radiation contamination. Japanese people have the option to accept the government guidelines or to decide for themselves what food sources they will rely on. Organic farming has become more important in the non-contaminated areas because consumers are more actively seeking food sources that they can trust. This demand is reflected in an increase in business for organic farmers and for stores that specialize in local and organic produce.

¹³⁹ McDonald, K., May 15, 2011, "What Effect will the recent Tsunami, Earthquake and Nuclear Disaster have upon Japan's Agriculture?," Big Picture Agriculture, <http://www.bigpictureagriculture.com/rice/what-effect-will-recent-tsunami/>, accessed May 14, 2012

CHAPTER VIII CONCLUSION

Japan's organic farming and natural farming movements have grown as a response to the disconnectedness of current-era chemical agriculture. Japan's heritage as a farming nation is evidenced in the landscape, especially in the countryside where old terraces and orchards maintain some character of the past and modern farming exists on the foundations of ancient farming practices. Even when agriculture shifted from subsistence farming to a more commercial endeavor during the mid-Edo period and the Meiji period, traditional farming was always a way of providing healthful food and farmers were always attuned with their environments. Japan's organic farmers of today, while linked with the international organic farming movement, openly and enthusiastically embrace Japan's traditional farming methods and Japanese cultural traditions. It is often seen in their choice of garments and activities both within farming and in their daily lives. Organic farmers whom I have met and spoken with at length, tend to exhibit a certain spirituality in their work and a reverence for nature. While they may not be openly religious, there is a very sincere "Japanese" character to their spiritualism which gives a sense of both Shinto and Buddhist sensibilities. The organic farming movement serves as a protest against what is wrong with modern agriculture and politics. It is also a way to protect the environment, and to provide delicious and healthful sources of food. For all of the farmers whom I met, organic farming was a way of life.

The Organic JAS legislation of 2000 created two classes of organic farmers: Those who are certified and those who are not. Each of these classes serves a different population of consumers. The non-certified farmers tend to serve local clientele whom they have personal relationships with. The JAS certified farmers do this as well, but tend to ship much of their produce to cities for distribution as “certified organic” for consumers specifically seeking that security of food they can trust.

The earliest model of the Teikei agriculture in Japan seems to be most strongly embraced by non-certified farmers at the local level. JAS certified farmers now have to compete with JAS Organic produce from abroad, and since they market more towards city centers, there are more stores now offering JAS Organic produce than in the past. This has caused some drift of consumers from the Teikei model and has forced both certified and non-certified organic farmers to engage stores to assist with marketing their produce. It will be significant to observe how this trend unfolds in the next few years.

A culture of agricultural protectionism evolved in Japan as a result of the societal changes that took place in the aftermath of WWII. The land reform restructured society and a process of mutual support between an organized farm sector and the government proceeded during the following half-century. Japan’s tremendous successes in industry and technology have allowed excessive support of the agricultural sector to continue unabated, partially because profits in industry have been so substantial.

It could be speculated that if a national level farm cooperative such as JA had not been formed, or if had been restricted to a narrower range of activities, such as serving only as an organizer of the farm lobby, then the scenario of continual decline of small farms and part-time agriculture that has played out in Japan may have been quite different. Also there may well have been a much different approach to the extensive use of chemicals in agriculture. If the JA did not profit from chemical usage, it would not so readily have endorsed the excessive use of them.

At the present, statistics show that Japan's agricultural sector continues to dissolve and that without significant policy changes, this trend will continue. Japan may opt to continue its protectionism, but it appears that this approach has failed to create a competitive agricultural base for the country. On the other hand, as the farm constituency becomes less and less unified, politicians and agricultural interest groups may come to their senses and restructure agriculture in order to revitalize it on a national scale. To date however, such efforts have been half-hearted and inadequate. The Japanese government's disastrous response to the food safety crisis has greatly undermined the credibility and trustworthiness of produce in Japan, which will undoubtedly have long-term detrimental impacts on the agricultural sector.

There are several possible paths that Japan might pursue if a revitalization were to take place. First, it could insist that import goods meet or exceed the standards of the Japanese

consumer and make certain that JAS standards are met and exceeded. This would force the markets abroad towards producing foods that are safer for consumers to eat. This is happening, but not on a sufficient scale. Much of the imported produce is not JAS certified and the average Japanese consumer is not well informed about food-safety criteria for imported foods or domestic produce for that matter. This must change quickly in the aftermath of 3/11. The European Union has set high standards, and gradually Japan has begun to increase its requirements with regards to concerns such as GM foods. Second, Japan might opt to stop sponsoring farmers who are operating part-time, or on a scale that is too small to be economically competitive. Third, it could establish or endorse large scale farms of significant acreage and productivity. It could create government run farms to meet the needs of international competitiveness, or at least to increase domestic productivity for some degree of national food security. It will also need to adjust laws to allow for agri-business firms to conduct larger-scale farming more easily. Such adjustments would undoubtedly have their own costs, complexities and drawbacks, and would require additional regulation.

A third approach to food security (for Japan to once again produce more than 40% of its calories) is for all rural communities (in safe non-contaminated areas) to extensively establish Teikei style organic community supported agricultural cooperatives (CSA's) and to lobby for environmental protection as opposed to agricultural protectionism. While this statement may sound idealistic, as has been noted in this thesis, there is a widespread population of

active organic and natural farmers in Japan, who are independent of JA and who do not receive government protection. Some of these individual farmers and organizations of farmers have existed in various forms since shortly after WWII or perhaps earlier. The Organic farm movement has become significant since the 1970's but although it is spread throughout Japan, yet it is not on a scale where it can provide sustenance for more than a small portion of the population. This must change, and consumer education is the only way to increase awareness.

One of the major organizations for organic agriculture in Japan is unified under the JOAA (Japan Organic Agricultural Association). It is not connected with JA and does not receive subsidies from the Japanese government. Since the JOAA consists of two populations: producers and consumers it has created the important precedent of making consumers have some connection with and responsibility for what they consume. The organic farmers and consumers have a relatively close relationship and consumers directly support the farms which are producing the healthful foods that they receive and eat.

Another organization that conducts CSA activities (community supported agriculture) is the *Shumei* group based in Shiga Prefecture. *Shumei* is a spiritual organization and practices natural farming, which is distinguished from organic farming because no fertilizers are added to the soil and no tilling is conducted. *Shumei* claims lineage from Mokichi Okada (1882-1955) who developed *shizen nouhou* natural farming in the early 1900's.

Shumei may have as many as 300,000 participants throughout Japan, many of whom are on the consuming end of the CAS arrangement, but again, this is of a relatively small scale when considered at the national level. It is also unclear as to how extensive their farming operations are.

In spite of the current relatively small scale of these various organic and natural farming groups, their various approaches could become part of a viable long-term model for the future of agriculture in Japan. Whatever the scale, they are certainly a critical part of the communities where they produce both as food suppliers and because of the cultural richness they add to the community. Part of their importance is that they provide a choice for consumers, which can influence people's purchasing habits and can therefore affect the future of agricultural market trends.

The establishment of Organic JAS is a very clear example of the market demand for organic agricultural products causing legislation to be established. It would be inaccurate to say that Japanese organic farmers or their customers established a need for national organic standards. Rather, Japanese consumer habits and lobbyists pushed against the import of genetically modified foods and resisted the importation of foods grown with excessive chemical application. Organic producers abroad provided a viable option for importing high-quality foods, which could potentially satisfy consumer complaints about food safety. From that perspective, providing Organic JAS marks for foreign produced organic foods was,

and is a marketing tool as much as a way of providing quality control.

After looking at the scale of individual chemical-free farmers in Japan, and how they tend to interact locally with their clients, often without JAS certification, it may be valid to suggest that organic JAS is more important for foreign producers than for Japanese producers. Foreign produce is never labeled as “chemical-free.” It is either Organic JAS marked, or it is not organic. In contrast, local Japanese farmers can put their personal labels on produce and include descriptions of their farming practices even if they don’t use the term “*yuuki*”, and even if they are not organic JAS certified. Prior to 3/11/2011, Japanese consumers tended to trust and favor the quality of domestic agricultural produce.

To compare the levels of organic produce between Japan and the U.S. is beyond the scope of this paper, but to give a sense of scale, suffice it to say that 0.7 percent of all agricultural land crop and pastureland in the US is certified organic and it is increasing annually. As of 2008, this amounted to 4.8 million acres.¹⁴⁰ In Japan, the total agricultural land as of 2000 was 11.93 million acres.¹⁴¹ On that approximate acreage, currently only .1 percent of the produce is JAS certified organic. When compared with the USA and other countries like France or Germany, Japan’s level of organic production is miniscule. Since Japan supports an estimated population of 127,300,000 people¹⁴² compared with USA’s

¹⁴⁰ Organic Trade Association, June, 2011, “Industry Statistics and Projected Growth”, www.ota.com/organic/mt/business.html visited April 12, 2012.

¹⁴¹ Ministry of Land Infrastructure and Transport, 2001, “Section 2 Agricultural and forestry Land Use”, website: tochi.mlit.go.jp/h13hakusho/setsu_1-2-2_eng.html, visited April 12, 2012.

¹⁴² CIA, *The World Factbook*, “Japan”- “People and Society”, website: www.cia.gov/library/publications/the-world-factbook/geos/ja.html, visited April 12, 2012.

estimated population of 313,800,000¹⁴³ it seems almost implausible that Japan could accomplish food self-sufficiency on its own acreage. However, organic agriculture in Japan may have a role to put a dent in the problem even if it can't be a complete solution.

The Fukushima nuclear disaster completely changed the face of food security and food safety in Japan. Tohoku was one of the major agricultural regions of Japan. While food continues to be produced there, much of it is contaminated to varying degrees, and food safety standards, at least for the past year (March 2011- April 2012) have been a complete disaster. At the moment food safety in Japan is highly dubious, particularly when purchasing manufactured foods without clear labeling as to the source of ingredients. Even when sources are listed, can they be trusted? The best option for Japanese consumers is to buy local produce directly from the producers in regions that they feel are safe.

While a great deal of valuable farm land was lost in the aftermath of the Fukushima disaster, Hokkaido, and many rural areas of Japan have open farm-land that is under-utilized or was even abandoned. These areas should represent a significant opportunity for farmers to relocate, and may also create opportunities for new farmers to become local producers and create new "teikei-like" relationships with consumers. Rather than lowering standards on food safety, the Japanese government needs to raise standards on food safety. The government needs to see to the compensation the victims of Fukushima and the surrounding

¹⁴³ CIA, The World Factbook "United States"- "People and Society", website: www.cia.gov/library/publications/the-world-factbook/geos/us.html, visited April 12, 2012.

prefectures and to punish the responsible corporations who failed the Japanese people by not having adequate safety measures in place, by keeping antiquated nuclear power plants in operation, and by locating them in places that are historically known to be hit by tsunami periodically. Human arrogance resulted in the Fukushima disaster. The government needs to take measures to insure a safe future and to focus on developing safe and sustainable energy sources. Furthermore, the government needs to be more open with the Japanese public and the international community regarding the real and present danger of radiation contamination as a major health hazard. It is the single largest concern that Japan should be focusing on at present.

There are several areas that should be investigated for future research as a follow up to this thesis. I would like to study the *Shumei* organization and to find out the scope, scale and characteristics of its farming and spiritual activities. I would also like to get more quantitative data on marketing methods of organic farmers in various prefectures in Japan. I was only able to present a general sense of how farmers conduct their marketing, and don't have adequate statistics for comparison. Approaching various organic agricultural associations and taking additional surveys may provide a more valid pool of sources for legitimate statistical analysis. Following up with the farmers interviewed and finding how things have progressed in a few years would also expand the significance of this thesis.

Finally, it will be very important to follow Japanese governmental policies and actions

very closely as relates to radiation issues, food safety, and imports and exports of produce.

As of April 1, 2012, the government standards for what counted as safe radiation levels were substantially reduced. Though still high, this is a step in the right direction. However, as the distribution of radiation contaminated food is still endorsed as safe by the Japanese government, this will be a critical issue for the foreseeable future.

APPENDIX

INTERVIEW TRANSCRIPTS

Following are transcripts of 5 interviews conducted during the summer. Interviews are listed in the order that they were conducted by date.

Interview 1. Kizuka Tadamitsu

Interviewee: Mr. Kizuka Tadamitsu, *Shachou*, President of Shoku En Kankyou Sougou Kenkyuu Shou Company, an NPO registered Organic JAS certifying body for Saga Prefecture and Kyushu.

Location: Saga City, Saga Prefecture

Date of Interview: July 5, 2011

Recorded in Japanese and translated by Author

Kizuka explains his role as a certifying body :

Kizuka: We aren't certifying the agricultural product specifically. Rather, we are certifying the field that it is grown in. We certify that this field was chemical free and that anything grown in the field is certifiable (for labeling with the organic JAS mark). Rice, onions, lotus root or whatever.

On a local level, it is common for farmers to label the food that they produce as grown by such and such a farmer and the location with the information about what methods they use for farming, chemical free, *yuuki*, and so on. However, at a national level, if things are shipped to different parts of the country, that is less meaningful. Instead, if you look at the individual JAS mark label there is a specific number for each farmer. If you contact the *Nou Shi Hyou*, and look it up, you can verify any JAS marked farmer and find out all of their information. JAS mark is valid at the national level.

JAS is not only for field products, but for things like *miso* (bean paste). We even check the machines that it is manufactured in to make sure that it meets the criteria to be counted as Yuki.

Author: Does the average run of the mill Japanese person know about JAS?

Kizuka Shachou: Well the number of (organic JAS marked) products for sale is still relatively few, so people probably don't know in a lot of cases. People who specifically have the awareness or consciousness that chemical fertilizers are bad certainly are aware of (organic) JAS.

Kizuka explains the requirements for farmers who want to become JAS certified:

Kizuka: In order to receive the right to use JAS mark, one is absolutely required to attend a Yuki JAS Koushuukai (JAS information program). It is a 5 hour study session. We did one in May. This was established by the *Nourinsuisanshou* (MAFF-Ministry of Agriculture, Forestry and Fisheries).¹⁴⁴

Interview 2: Tanaka Kinji

Interviewee: Tanaka Kinji, *shizen nouhou* farmer, retired professor of agriculture, Saga University

Location: Mitsuse Town, Saga Prefecture

Date of Interview: July 12, 2011

Recorded in Japanese and translated by Author

Notes: Some portions of the interview have been omitted or summarized for practicality. Other portions have been moved to other sections of the thesis paper.

When Tanaka Kinji started as a professor at Saga University, the Agricultural Department was doing *kindai nougyou* (lit.: current era farming, with the use of chemicals implied.)

Tanaka: Then I started doing organic farming there and so a small side branch of farming started at the university and went out from there. That was back in 1992 after reading Fukuoka Masanobu's book *Shizen Nouhou Wara Ippon No Kakumei* (The One Straw Revolution). I follow Kawaguchi Yoshikazu's way of *shizen nouhou*. I plant one seedling at a time by hand. Fukuoka really just threw things about (after inserting seeds in clay balls) and let them grow as they would. He also took that style of farming to Africa and other places. But in Japan for the most part, there is hardly anyone following that method as far as I know. There are some Japanese who did that method and took it overseas however. There is also Okada Mokichi, he is another line of *Shizen Nouhou*. Kawaguchi Yoshikazu was a student of Okada.

Organic farming is important for the future of Japan, but the problem is influenced by short term economics. In Japan, just in the same way as nuclear power

¹⁴⁴ Kizuka, Tadimitsu, interview by author, Saga City, Saga Prefecture, July 5, 2011.

plants (are used in spite of the dangers), in farming people want to get a lot of produce quickly and in general fall into that course. If you say don't use chemical fertilizers, people have a difficult time accepting that approach.

Japan has a high level of humidity. Lots of weeds come in. There are lots of insects. And plant diseases also appear a lot. So in Japan, *Yuuki Nougyou* (organic farming) is very challenging for people. It takes real effort. However, if you plant the rice seedlings when they are a bit larger, and leave a larger space in between them than the machines do, then the wind comes through and they get more sun and in general are much more vigorous and grow better. Sun and wind are medicine for plants. If you do it that way, you don't need chemicals.

This is my 6th year doing it that way and it works well. Even if there is a typhoon, and the plant may bend sideways, it still comes back up afterwards. For those people using the chemical fertilizers, if the plant falls over in a storm, it doesn't come back up. They grow fast but they are weak. So the point is if a person is greedy to grow too much, it doesn't work.

When I look around, I see people growing egg plants and other vegetables, but I give about twice as much space for each plant as they do. People shouldn't be greedy. Eating is the same. Eat until you are 8/10 full (Japanese expression- *hara hachi bun me*). If you eat too much you get sick.

Taru wo shiru (knowing how much is the right amount). This is the problem in Japan, people don't know how much is the right amount or that *less is more*. Do you know Rachel Carson- Silent Spring? DDT was used widely in the United States and then the fish died and the birds could not be heard. So they stopped the use of DDT. If you use fertilizers and pesticides, the microorganisms in the soil get burned out within a ten year period. So the fact of the matter is that we need to stop conducting farming with chemicals.

In my kind of farming (*shizen nouhou*), not only do I not use chemical pesticides and fertilizers, but I don't use machines like tractors. Just my hands and some shovels. Well recently I've purchased a gas powered weed cutter (a weed wacker with a spinning blade.) It makes it easier to cut high grass.

Author: Have you found that there is a difference between the food produced using *shizen nouhou* and standard *yuuki nouhou* methods?

Tanaka: Well, maybe *shizen nouhou* tastes a bit better... Both takes a substantial amount of work. A major difference though is that in *shizen nouhou*, the soil is not tilled. In *yuuki*, farmers use tractors and turn the soil. *Shizen nouhou* does not disturb the ecological balance of things or do environmental damage as much. And

the food produced is good, but it's difficult to really say how different it tastes from food produced using the more mechanized organic farming methods. And it depends on the individual farmers. Also in *shizen nouhou* you don't use a green house or cover the ground in vinyl tarping. On the other hand for organic farmers, there is a need to use a green house for tomatoes and other similar plants that need special conditions to grow.

That is a major difference between organic farming and *shizen nouhou*. *Shizen Nouhou* only gets crops that are in season. Organic farming in contrast will modify conditions, such as using a green house in order to grow eggplants, tomatoes for example, at any time of year so that they can be sold. But the foods grown out of season really don't taste as good as when they are grown in season.

So at a basic level, wind and sun are bare necessities. It's true that I am growing only for my own consumption, but in the past, Japanese agriculture had always functioned at a single family level. The parents, children, and maybe up to the grandchildren. Now, from Saga, people are taking most of the produce to Tokyo to sell.

Organic farming has all kinds of variations, so there is no need to say that it only has to be one way. If you meet a hundred farmers, then there are hundred different ways of farming. But now I am doing *shizen nouhou*, and I feel that it is the real way to farm. I guess I graduated (he chuckles) from organic farming.

Author: I was getting introduced to lots of people as organic farmers, but when I in fact met some of them, they told me that they weren't explicitly organic. If necessary, they might sprinkle a bit of fertilizer or pesticide here or there. Kanamaru-san told me the other day something along those lines. I suppose there are cases when you are going to get lots of insects and it makes things difficult...

Tanaka: Well if you use fertilizer, you are guaranteed to get lots of insects. Insects find these fast growing things delicious, but they aren't delicious for humans.

Tanaka: Now that I am retired I farm full time. Before I retired I did a bit of farming on rented land or did some farming on my wife's small property, but it was limited to that. I grew just enough for my own household. Now I have about ten different areas that I farm. They are small, for example one is about .1 ha and one more is about .05 ha field and then a bit here and there. I grow now for my wife and myself, but if I have extra I ship it to family members in Oita. So even now I am growing for my family. Also sometimes I go sell some at a store called "Genki Bata" (healthy field) in *Nishou Machi* in Saga owned by a man named Nakashima-san. I

sometimes take onions and baby bamboo. They specialize in organic foods; for example Onodera-san's eggs. But it's on a small scale. In Japan, there are those organic farmers who really do a business of organic farming. For example, there is an organic farmer named Nakamura Katsushisa who really is running a for-profit organic agriculture business and brings his produce to Saga city every day for sale.

Author: In this area, wherever I go in the organic agriculture community, your name, Tanaka Kinji Sensei comes up. It seems that you are connected to a great degree all throughout the organic farming community. How is everyone connected or organized in terms of sharing ideas, information, education, etc?

Tanaka: There really isn't a network. In the past there was "Slow Food". I used to do that with Onodera san and some others, but I stopped. The idea of "Slow Foods" was started in Italy about ten years back. I thought I would participate in it, but for me there is really no point.

Author: What sort of things do the people who are doing "slow food" do?

Tanaka: For example, they make fresh tofu or *natto* (fermented beans) from scratch. While most other people buy those sorts of products at the super market, the "slow food" group likes making these things themselves. It's kind of like a social club. I participated for about 5 years. In December in *Shimabara no Unzen*, there is a festival (with "Slow Foods") that I still will participate in. Slow Foods is important. It's just that I am not officially part of the *national* organization anymore. Slow Foods members put effort into making food in the old way, so that it is healthful and so that it tastes good. Pretty much, they do the exact opposite of what Mac Donald's does (he chuckles). It's about going back to eating what was eaten in the past. Also, "Slow Foods" participants want to harvest and gather their own seeds. Most other farmers don't. This is one of the activities that I do still participate in regularly. Gathering and exchanging seeds.

These days, there is so much genetic modification going on. If you purchase genetically modified seeds, they are designed so that the next generation won't produce fertile seeds. We would rather gather our own parent seeds and not have to buy.

Also, each year, on the last Saturday and Sunday of January, there is a *Kyushu Chiku* (Kyushu area) conference for organic farmers called "*Yuuki nougyou no saiten*" (Yuuki Nougyou marketing conference). This is done every year. The purpose is so that people conducting organic farming can make a healthy living.

Occasionally I give presentations and things and so I may meet some people who

are organic farmers, but really, at least right now, there is no formal network in Saga prefecture. Places that have a well established network on Kyushu are Kagoshima, Kumamoto, and that's about it perhaps. Kizuka San (the registered Organic JAS certifying body) has a *Yuuki Nougyou* Association, but it's not really a network. He is connected with organic farmers specifically interested in having a JAS mark.

Tanaka: Even for me, I feel this way. If farmers spend the day out in the sun from morning till night, working hard, and at home, they have a cup or two of sake, they don't feel in the mood to write at that point. Farmers for the most part work till late at night, get home and take a bath, have some sake, and by that point it's time for sleep. And the *Nourinshou* (MAFF) says keep a diary of your work. Be certain to document everything. It's not a good match. So farmers argue with them.

This is all influenced by the WTO (World Trade Organization) I think. As of 3 years ago, roughly 86 percent of the organic products in Japan were from abroad. That means that only 14 % were grown in Japan. This has probably changed some since then.

Author: "Most of the organic products from abroad are probably sold in Tokyo and in other large cities because the people in rural areas have a less demanding preference regarding organic products. Is my understanding correct?"

Tanaka: Most of the JAS organic produce in Japan goes to cities for sale. Organic farmers groups in Tokyo, Chiba, etc., do deliveries to people who want organic produce. The JOAA does this. People make an annual contract for a share of whatever is grown. In Tokyo there are a lot of those sorts of people who want to eat (JAS) organic produce. It may be partially connected with status.

Interview 3: Suezawa Takuro

Interviewee: Mr. Suezawa Takuro, organic farmer

Location: Kokubunji Town, and Takamatsu City, Kagawa Prefecture

Date of Interview: August 16th and 19th, 2011

Recorded in Japanese and translated by Author

Notes: Some extraneous portions of the interview have been omitted or summarized for practicality. The two interviews have been merged for relevance and readability. Narrative description has been integrated where necessary.

Suezawa: Sanchoku Takamatsu and some vegetable sellers that choose to use local

produce are the main places for selling my produce. There are a fair number of vegetable stores that do sell organic produce. People can often locate them using the internet. In Takamatsu there are more, but in other areas like Zentsuji, not as much. Suezawa: As long as you maintain a good balance between *ekichu* (useful insects) and *gaichu* (harmful insects), you usually don't have a particular problem with one crop being damaged. When people apply a lot of (chemical) fertilizer, it creates an environment that is susceptible to an increase in *daichu*.¹⁴⁵

Suezawa described his style of farming as somewhere in the spectrum between organic farming and *shizen nouhou*. He gestured to some plants growing alongside the driveway:

Suezawa: These pumpkins here came up by themselves and so I let them keep growing. Why disturb nature when it's doing my work for me? I am trying to move towards *shizen nouhou*, but right now it's too difficult to do in a complete sense, so I borrow the principles of it where I can, step by step. As I gradually understand more, I move towards that. But right now I don't have only one teacher. I learn from everyone around me and try to borrow the best points. If I limit myself to only one teacher, there is no way to surpass that teacher and actually, I can get stuck with the restrictions (and limitations) of one teaching. So I need to develop my own original way based on what I observe from everyone around me.

In terms of fertilizer, I use the discards from ochre and corn stalks as base mulch. I buy compost made from ochre that hasn't been sold. Also I use (organic) *keifun* (chicken manure) and *gyuufun* (cow manure). The problem with animal manures is that if hormones and medication are used, this stuff comes out in the manure and then can be added to plants. So I don't want to use that. If I use manure from animals that are well treated, and properly fed, and not put on antibiotics and hormones, then that makes excellent fertilizer. I also use compost that my friends have made, mixed with vegetable waste and plant debris.

Our rice is also *munouyaku* (grown without chemicals), but the problem is that the water that comes into the field comes from *tameike* (reservoir ponds) and drainage water, and so in all truthfulness isn't clean water. If the water was fresh water from a mountain, that would be different.

The thing about using chemical agriculture (in general terms), is that it initially boosted productivity, but then ultimately that drops off and it's not sustainable. With organic farming in contrast, the method is to constantly build the soil so that it is

¹⁴⁵ Suezawa Takuro, Interview by Author, Kokubunji, Kagawa, August 19, 2011.

always improving, and productivity will tend to go up without needing to drop off. There is no limit to how much the soil can be built. Right now, a lot of us in organic farming are still beginners, and so we are still developing our way of farming. But I think that once we get better at it, we can be very successful.

Now I am doing alright, finally in my third year, but the first two years were really challenging. I was starting to get uneasy. Even when I got some results here and there, I really didn't quite figure out why one thing worked and another didn't. This year I felt a little bit better with my understanding. But still I'm slow. I'm trying to get rid of mistakes and unnecessary actions in my farm. But it's not going to happen suddenly. It's all a matter of experience. The closer that I get to nature, the easier it is to have the sensitivity to recognize the subtle points. It takes time to figure out what has to be done and what has to *not* be done. The idea is to let nature do its work and not to get in the way as much as possible. So I am trying to smooth out excess work. Rather than being useful, doing certain things just gets in the way. I have to really observe the plants that I am growing in order to know what they want.

Suezawa: Now I'm 33 years old. This is my third year farming (on my own). Before that I spent a year in the mountains of Kochi (prefecture) at a school for organic farming. The name of the school is *Tosa Shizen Juku*, near the Sameura Dam pretty much at the center of Shikoku. There are apprentices living with the teacher as well as a separate area where the school is set up and farmers go and learn (hands on) how to farm and practice what is taught.

In Tokyo there is a man named Yamashita Kazuo who is the director of the *Yuki Nougyou Kenkyuu Kai* in Japan (JOAA). My organic farming teacher in Kochi is one of the members of that group.

Going back to when I finished high school, I wanted to get out of Kagawa, and also distance myself from my parents. So I went to an Agricultural specialty school in Ibaraki Prefecture north of Tokyo. But I didn't study agriculture a single bit. I was always sleeping, and part way through (the day) I would cut out of class. I was that kind of student. I played with my friends, rode my motorcycle, went to the beach or hiking; the sort of things that a bad student does. But now that I think about it, it was really wonderful experience. Living with friends and doing everything together like brothers or stepbrothers. And now I have friends all throughout the country because of that. Just making those friendships made it so those four years were a great success.

When I was 23 years old and graduated, I went traveling to New Zealand, America, and East Asia. In total it was a year. When I was in America, 9/11 happened. Then I came back to Kagawa and started to work for senior citizens care. Having that (being abroad) experience inside of me broadened my perspective. I could look at

things from the outside critically, and while doing that I also became aware of many points about Japan that were very good. Like when I was out in Ibaraki, I realized, Kagawa is really a good place. But people who are here might not even think about that. There are few environmental dangers compared to other parts of Japan. There aren't many typhoons or tsunami or earthquakes. The weather is often clear here. The only real problem is when there are droughts. It is a comfortable place to live. The weather is calm and easygoing so the people are calm and easygoing. The scenery may not be as beautiful as in some parts of Japan, but it's a good place to live.

Do you know *Gokuraku*? It means *Raku ni Kiwameru*, - to live in a way that is comfortable. Not to be lazy or that sort of thing, but to find enjoyment in the things you do. If I find something enjoyable, it's not difficult or painful. It's a (positive) attitude about life. I think that is what Buddha was trying to teach. My feeling is: *Shizen ni kansha, subete ni kansha*, (Gratitude for nature, gratitude for everything.)

Suezawa: On Sunday we have a Marche at Sunport with a gathering of organic farmers. There are at least 10 organic farmers in the area. We exchange information and help each other out. Rather than feeling like we are competing with each other, for the most part, we are interested in health and the environment, and so we have something of a mutual support network. My teacher in Kochi teaches that there is a need for this mindset or *yuuki nougyou* can't advance. I don't do *takuhai* (box deliveries) because I am not at the level yet where I can be consistent. If I get to the point of *takuhai*, I will have to have customers who can understand the circumstances and conditions of the farm and accept them. If I can get that sort of customer, I would like to do that.

I asked Suezawa if there had been any consideration of forming a corporation for organic farming. He told me that while the organic farmers tend to be friends, they also tend to prefer to be their own boss, partially because they each have different approaches to farming. I then asked about taking on part-timers or teaching apprentices organic farming in order to expand the number of organic practitioners in the future.

Suezawa: In Kagawa I have some organic farming friends who graduated from the same school in Kochi as I did. There are about 4 of us. Anyway, I figure if I can pull

this off in 5 years , then I can start to teach newcomers and young people. Maybe they can do it in three years. Maybe I'll be ready for that in three more years (he says with simultaneous skepticism and optimism).

Suezawa: There are few people around here who have JAS mark. It's difficult and too much trouble. I don't have it, and I probably won't try for it. Since I am selling locally and as a local farmer, there really doesn't seem to be a need for it. If people just come to my field it's quicker. I just say I'm not using chemicals. There are also certain things allowed within JAS that we don't really consider to be organic farming. The people who set the standards maybe didn't have adequate knowledge. So basically, it seems that having a personal relationship and understanding with customers is more important.

Suezawa: Possibly having the JAS mark may make it easier to get certain customers. But I think that it is the deliciousness of the food that is most important. Once people know that the food is exceptionally delicious, then they will buy it.

Each Sunday, from 9 am -2 pm we have our farmers market at Takamatsu Sunport, called Sunport *Marche*. There are about 4 people who participate. Since we don't have JAS mark, we can't call our product "*yuuki*". However, our group name is "*Yuuki no Sato*" (The Original Home of Organic). So we can get away with that. We also have our own label for our group and require that everyone in our group conducts chemical-free farming. Actually one of the people in the group has a JAS mark. (he laughs).

At some point, we might get a complaint from the government about this label, but so far it's okay, maybe since it's so little (he laughs again). We've had the label for over a year now.

Here is my personal label "Green Smile". Anything that I sell at a market gets this label. It tells that I use no chemicals. I think that when people see the label, they are conscious of the difference and are willing to pay the small price difference for the benefit of *munouyaku* (grown chemical-free) produce.

Interview 4: Sakaguchi Nori

Interviewee: Sakaguchi Nori, organic farmer

Location: Sasayama, Hyogo Prefecture

Date of Interview: August 22, 2011

Recorded in Japanese and translated by Author

Notes: Some portions of the interview have been omitted or summarized for practicality.

Sakaguchi: I started organic farming in 1994. I became interested because of environmental problems, in general. When I got together with lots of people in my locality, we did things like cleaning river-sides, and gathering garbage. I remember going to a trash collection center and gathering information about garbage. When you're a student, you explore different things that you can do. But when you graduate, you have to work and make a living. At that time I decided that I wanted to do work that involved dealing with environmental problems. Also, I wanted to create a place where various people could gather. Different people could come when they were having uncertainties in their lives and talk, play music and enjoy life. Thinking about both of those two I thought farming would be a good fit.

Author: And you were successful.

Sakaguchi: Well in retrospect, I'm glad I kept at it, rather than giving up in the beginning. And now I'm sixteen years into it. I also started music around that time. Initially I was into British and American rock, but then I shifted more towards ethnic (Japanese traditional folk) music. I play taiko drums and flute. Rather than performing on stage, I like to play at homes for elderly people and schools for the handy-capped, like I did yesterday.

Sakaguchi: The good points of organic farming are that within my daily home life, I can work and also, I can produce the food that I eat. But one thing that is not quite the way I envision it is that we haven't managed to get the whole family to be participants in organic farming. Really doing it by myself is very hard. I would rather that everybody helped, like farming families of the past. Cooperate, and work together. But these days, kids in elementary school do volleyball and have various things to learn. But the food is good.

These days I make about 4,000,000 yen per year, (about 51,282 at 78 yen/US dollar exchange rate of 2011) which is not so bad. And I don't have to put out money for food so I think we are able to get by on that income. But I'm a bit worried about when it comes time for my children to go to college. Economically it will be a stretch. So they are going to need to get scholarships.

What is great is that I have freedom. At first my main interest was environmental concerns, and learning how to use my hands. But what I really like now, is that am free to decide for myself what I do. How I do things, and what I sell. But at the same time, having that freedom means that I have all the responsibility. But I like freedom, from the start I was a "hippy" (he smiles). Nori-san has called himself a hippy for as

long as I have known him.

Author: From this point what do you envision for yourself in your farming.

Sakaguchi: That ties in with certain particular issues in my circumstance. The people who bought my produce for the past 15 years are now in their 70 and 80's. But they aren't connected with the younger generation. I don't have many customers in their 30's and 40's. If the older people become lost, things cut off at that point. So now that is a concern for me. I don't have a new generation of customers. So while I have a general idea of what I might like to accomplish, I don't have it planned or framed out in terms of 5 years in the future, and ten years in the future. It's more like the things I have to do now, I do now.

Author: Are you cooperating with other organic farmers?

Sakaguchi: Yes, I am. In Sasayama in these past ten years,-particularly in these past 5 years, within my own age group, the number of organic farmers has greatly increased. In the winter we gather and exchange information relating to farming methods and marketing for example.

Author: What is your marketing method?

Sakaguchi: I don't sell to big stores. Instead, I sell to individual customers. The thing is that individual customers don't tend to suddenly increase or decrease. So for the most part it's stable. You get one new customer at a time. But now with the nuclear power plant disaster, the number of customers has begun to increase. My income doesn't go up so much, but on the other hand it doesn't suddenly drop either. It's sound. But that's just my way of doing it. It could just as well be done on a larger scale. In the past, I was selling to restaurants and vegetable shops, but when the economy got bad, they stopped purchasing from me, so I don't deal with those sorts of clients anymore. -Because it's unstable. Instead, I sell to individual households.

Author: About how many customers do you have?

Sakaguchi: Maybe 90 to 95 households. But some of them only get vegetables once per month. Also the price depends on what I put in the box, on the specific produce and the gross weight. It usually ranges from between 1500 yen to 2500 yen per household. That's because I don't feel good about charging too much if it's a bad

crop-year and there are less vegetables. If I bring down the price when less is available, I feel more comfortable accepting their money.

Author: How has organic farming grown and changed since you started 16 years ago?

Sakaguchi: Around 1970 the concept of *Yuki No San Buts* (organic produce) started. The groundwork was there. When I started about 16 years ago (1995), *yuuki* vegetables and Yuki farming were at least to some extent (commonly) known terms. But in these last seven or eight years it has received a lot more attention. It has become much easier to do. However, though it is received openly by society, it is still difficult to make a living at it. It takes skill. Also finding the correct market to match the amount that you are able to produce is difficult. *Yuki nougyou* is recognized, but if you come out and say you want to do it, people say "oh I see, so you want to do organic farming?" as if it is unrealistic.

Author: I think that the organic farmer population is advancing, but the numbers of organic farmers must still not be enough?

Sakaguchi: Not at all. If you think of the percentages, organic produce is about .1 percent of all the vegetables. It's really limited. If you included the *kateisaien* (home gardening) that old men and women do without using chemicals, the amount increases. But in terms of organic produce grown in agri-business in Japan it's .1 percent. And that probably doesn't include the vegetables I grow because I am not associated with JAS.

Author: According to my research, the Japanese only grow 40% of the Calories that they consume, and as you just said, only .1 percent of that registered produce is Organic JAS. From this point, I can see that organic farmers are working to increase the amount of organic farming that goes on, but realistically, what do you think that the future holds for Japan's agriculture?

Sakaguchi: The Japanese government is trying to increase the scale of farming. In order to do that, they are putting out money. America does the same. Japan is trying to bring down the price of produce so that it can compete with produce from other countries. But for Japan, in terms of increasing scale, there are certain impossibilities. As a family unit, I think growing our own high quality produce is the right way of doing things. Also, growing high quality produce and exporting it would be good to make progress in, but the international image of Japan's produce as a whole, even that

which is still safe, has really collapsed in the aftermath of the nuclear power-plant disaster.

I think that growing high quality produce (in Japan) works best in smaller plots. I said family centered farming before, but compared to America's 3000 acre farms, I think Japanese farmers could do with about 30 hectares. 20, 30, or 40 hectares would be good, if functioning as a company, and so one more possible path for organic farming is to hire people and do it on a larger scale. I think that there will be people who come out and do this, but I am not sure if there is anyone doing it yet.

I've been invited to participate before. They said, "Let's make a company." But personally, I don't quite see the merit of making a formal company. For example, if you make a company, for the first 5 years there is a tax credit, or you can borrow more money from a bank. And you can accumulate farm equipment and hire people. But I was thinking, what's that actual merit of that? It's true that you can take vacations if you hire people. However, one season there were about 5 typhoons, and come winter, there were really hardly any vegetables to sell. If it's just one family, you can get by, but if you have hired people, you have to pay them, and if there are no vegetables, then that's really difficult.

Sakaguchi: It will take 8 trillion dollars to mitigate the damage in Fukushima prefecture alone. It's impossible. 800 *chou en*. If you take all of the money that the Japanese have in their savings its only 1500 *chou en*. So it is not going to happen. The areas that have been polluted (by radioactive contamination) are as far south as Shizuoka (as of August 2011) and as far North as Miyagi prefecture. And the cows there that ate *inawara* (hay) were also exposed.

Author: By now has it gone as far as Hokkaido?

Sakaguchi: In Hokkaido there are still relatively limited amounts I think. Really in Japan, the scope of the radiation monitoring is inadequate. The government really should be doing that. They really move slowly.

I briefly commented that it is very difficult to keep track of just where harmful or irregular levels of radiation have been detected because sources such as the internet all say different things and none are clearly reliable. Before the summer places such as Hyogo, Shikoku and Kyushu had been relatively uncontaminated. I asked "What is the situation

now?”

Sakaguchi: There is a large river in Osaka, Yoto Gawa where small amounts of cesium have been detected. Before this there was none, so there are at least low levels of radioactive pollution that have come this far. In nature there are natural levels of radiation that people are always exposed to. But other than that it is best for people not to be exposed to radiation. This is the national understanding here.

Author: I have spoken to a number of different people about their concerns about radiation. It seems that many Japanese people, including some very intelligent and educated people are willing to accept whatever the government advises them.

Sakaguchi nods, agreeing with the statement, though he is not included in this generalization.

Author: “People seem to think that the levels of radiation are low enough in areas like Tokyo that it is not a major concern to be exposed.”

Sakaguchi shakes his head: *Metcha metcha ooi yo.* (It’s a really, really huge amount); the amount that has already come out. I didn’t know this, but a college professor said this on Youtube. In terms of uranium, the amount of radiation released from the Fukushima plant was 20 times that of the atomic bomb dropped on Hiroshima. But this is the important part. When the bomb exploded, one year later only one thousandth of the radiation remained. But the radiation that came out of the (Fukushima) power-plant, I don’t know why, but it will only decrease to one tenth after one year. It will only decrease to one tenth...

So based on after one year, Fukushima has 100 times more radiation than Hiroshima. And there was already 20 times as much initial radiation released, so that means that it is 2000 times more radiation than Hiroshima. It’s really the worst thing. I really feel sorry for the people of Fukushima.

Author: “Are the amount of deaths amongst Fukushima residents known.”

Sakaguchi: “Not so many have died but, for example, we conducted the organic camp here. And there was a person who said they would come from Chiba, but they canceled. That person’s baby is now five months old. It was born after the disaster, and has had continuous diarrhea all along. And amongst the children in the surrounding area a large number of them get nosebleeds I was told. Before the accident

that wasn't the case. And that's Chiba, which is 200 km from Fukushima.

Author: By the (Japanese) government standards, that is far removed from the danger zone. They were saying that 20 or 40 km away is the safe zone.

Sakaguchi: But you know, in terms of Chernobyl, at that time the number of dead or those that got cancer that the government announced publicly was very few. But according to a different report, the number of victims was almost unbelievably high. So whatever the government says can't possibly be trusted. But on the other hand, that can't be helped, because if the population became a big panic, it would be a serious problem. So if I say it from the perspective of the government to a certain extent, it can't be helped. So what we can do is try to get information from the internet, try to choose information that seems reliable, and use the best judgment we can.

Interview 5: Hashimoto Shinji

Interviewee: Hashimoto Shinji, organic farmer, vice-president of Hyogo Organic Agriculture Association/ board member of Japan Organic Agriculture Association (JOAA)

Location: IchijimaTown, Hyogo Prefecture

Date of Interview: August 22, 2011

Interview in English

Notes: Some portions of the interview have been omitted or summarized for practicality. The transcript is as follows. Some redundancy or unnecessary details have been omitted and commentary may be included.

Hashimoto: I started organic farming 23 years ago in this village, Ichijima. My role in the organic farming community is that I am the vice president of the Hyogo Organic Agricultural Association. This association is promoting organic agriculture within Hyogo prefecture. Also, this organization is a (JAS) certification body accredited by the Japanese government; one of the oldest. I used to be the coordinator for "IFOAM Asia." This is the International Federation of Organic Agriculture movement. This organization is centered in Germany. More than 700 organic organizations including OTA in the US, are members of IFOAM. IFOAM used to have regional groups in America, Europe, and Asia to promote international organic standards.

Also I am a board member of the Japan Organic Agriculture Association (JOAA). This is a national network of organic agricultural organizations covering all of the prefectures of Japan. We have national meetings twice per year, and I used to stay in

the international section. I just started participating as an organic farmer but because I happened to speak English, they asked me to attend one of the IFOAM Asia conferences held in India; where I was elected as a board member. This was my first involvement in the international organic agriculture movement. That was 15 years ago. Now I am finished with that job, but am still involved with JOAA. So I am very involved in promoting organic agriculture in the area.

Also, this village, Ichijima is one of the first villages to have started organic agriculture in Japan. The particular characteristic of this village is that we started with community supported agriculture which we call the "Teikei" movement."

Hashimoto provided me with a written explanation of *teikei* marketing. I mentioned an article that I read about Mr. Hashimoto and *teikei* far on the internet written by Elizabeth Henderson. I had not made the connection until I met him in person. He knew of the article.

Hashimoto: Much of the organic agriculture started with conventional marketing in the West. And meanwhile, in Japan, organic agriculture started with community supported agriculture. It was around 1975 when there were lots of food contamination accidents like Minamata disease or pcb problems. And consumers at that time were really worried about the food that their kids eat.

There was a professor named Yasuda from Kobe National University and he started a food pollution seminar at the Kobe Student Youth Center. Many wives came to study about it, and they decided that they needed to find safe foods for their kids. They started to look for farmers who produced the food without any pesticides or chemical fertilizers. In Ichijima there was a retired agriculture teacher named Mr. Kondo who really wanted to start doing organic agriculture. When he knew about this group of wives who were studying about food pollution, he approached Dr. Yasuda and they decided to hold a meeting between the producer and the consumers.

Dr. Yasuda said that the reason why food pollution was becoming so serious was because there is no understanding between the producer and the consumers. The producer does not want to apply the pesticide, but they are obliged to. It is because of the market. People require them to produce the food and vegetables that are very beautiful and that will entertain the consumers. And the consumers think that the cucumber is naturally straight and that they should not be bitten by any insects, which is not natural. They did not know the situation in the farm.

Mr. Kondo thought that if we just grow organic produce, there is no solution. The

real solution will come when there is a real understanding between producers and consumers. We've got to stick with each other and we try to understand each other. So this *teikei* movement started in Ichijima. Thirty producers came up and there were about 500 consumers in the beginning and it soon reached to 1000. Consumers are required to eat the seasonal boxed vegetables. They cannot order the vegetable by what they like. It is because if the consumer only likes tomatoes (for example) but if they don't want the cucumbers, the producer cannot do a good rotation.

If a consumer required vegetables out of season, then the producer has to use some artificial materials. So we decided to just produce vegetables in season and the consumers are required to receive whatever vegetables are being produced on the field.

Twice per year we still hold a planning meeting between the producers and consumers, and we discuss the price of each kind of vegetable and we plan the amount of land that will be used to grow each kind of crop that we are going to produce for the next year. The consumers have their groups in different areas of Kobe and they select their leaders. Then all of the leaders come up and organize a board. These board members come to the village and they talk with the producer and then we decide on the details. This is the way it is done for the different *teikei* systems in different parts of Japan.

Author: In terms of your farming and the other *teikei* farmers, do they sell only to direct contract consumers, or do they sell to stores as well?

Hashimoto: In the beginning the farmers sustained their living by only selling to their own consumers. But the situation in Japan has changed after the (JAS) certification system came, and also the marketing system started developing. Before the supermarkets in Japan started selling the organic produce, consumers could only buy organic produce through the *teikei* system, because the *teikei* system was the only source. But some of the companies got very interested in the seasonal box scheme and they set up a home delivery box system. In this system the contents of the box come from all over the nation, so there is a greater variety of different things which consumers like to have.

Also, After Organic JAS started, some of the supermarkets got interested in starting to sell organic produce, and the consumers can choose whatever they want in the supermarket. Some consumers started to leave the *teikei* system. Marketing became really challenging.

In the USA, I would say that the organic market started with farmers markets and then the supermarkets. Then CSA's (community supported agriculture/ same as *teikei*) came later. However, In Japan the CSA came first and then later the

supermarket.

Hashimoto Shinji: About this Fukushima accident; after the nuclear power plant was broken out there, we thought that we should save the organic farmers over there. Some of the French foundations asked if they could do anything with us. We asked them to support farmers to move from that area. But the organic farmers who were there told us that they don't want to move because they want to stick with the village. We thought this was very dangerous. And they start producing their own produce and they are asking for consumers in the Tokyo area to support them. They say that their contamination is not serious because it is under the government regulation.- Which is 10 times or a hundred times higher than other countries.

The Japanese government set up the contamination regulations on March 17th. They changed the level, which is compared to other countries, much, much higher. But the organic farmers there are telling that the government says that the contamination level is not so serious, so we can produce there and sell our produce.

I am a second generation of Hiroshima atomic nuclear victims. My father got, - he was there in Hiroshima when the atomic bomb hit. And many of his friends suffered from many kinds of disease. Maybe I don't have time, but... The contamination is really serious (his voice rises). And I'm sure that after five or six years that if these farmers stay there, then they will face the same kinds of problems. But they are not hearing.

And another problem is that there is no international organic standard on radiation. -Because organic standards and certification began to develop after Chernobyl. Organic communities all over the country never thought about radioactive contamination. I am thinking about setting up organic standards from Japan, and to propose this to IFOAM. IFOAM will propose the codex committee and the codex committee will set up the guidelines which oblige each country to put some kind of radiation contamination regulations for organic standards.

When another nuclear power-plant breaks in another country, if this organic standard has been set up, at least organic farmers can be compensated and maybe they can use this money to move to another area.

Hashimoto: This map shows how the contamination appears. I don't think it is possible to clean up. The contamination is also in Tochigi prefecture, which is very serious. I think this is because of weather causing contamination to spread. I want to establish a program to move organic farmers from contaminated areas. I think this is the main issue for the organic community; how we can save the organic farmers in Fukushima, and how we can set up the regulations before the next accident.

I am sure that another accident will happen. It happened at 3 Mile Island in the U.S., and next at Chernobyl, then it happened in Japan. -Meaning that it will continue to happen in other areas. When we think about the third world, China, Indonesia, where the government tries to hide lots of secrets, I don't think they can manage the nuclear system. And I am sure that accidents will happen one after another, here and there. We have to stop this too.

What happened in Hiroshima is really scary. You know, we Hiroshima victims have some things to repent, because we used to say: No more Hiroshima. But in the middle of our movement, we started, just singing, having some peace festival, or something like that. We kind of moved towards the sort of movement which is not real. It was fashionable. Even the organic movement is getting fashionable. People are forgetting why organic agriculture started. Organic style is beautiful. Organic style is good. But people are forgetting why we started organic agriculture. It is the same with this radiation. In the beginning people really stay serious. They try to convince people and they try to give a message to people how contamination is serious. But later on, people start forgetting about it and they think: why do we keep saying things which are interesting? So they start making peace songs and singing in front of people, peace events, peace festival. And try to hide the real message because it is not interesting to the younger generation. That is one reason that I think, even though Japan is the first country in the world that is a victim of nuclear things, but now we face another one in Fukushima.

Author: And this one keeps going on.

Hashimoto: Yeah, 20, 30, 40 years. 60 years has passed since Hiroshima, but there are still victims. My father has cancer inside his body. He maintains his health, but he maintains his cancer at the same time. He is still alive. My grandfather, he was not at Hiroshima when the atomic bomb was dropped. He went to Hiroshima after the dropping to see what happened to his building. He died at age 51. Maybe after 2 years I will reach that age, and I can imagine how young he was. These are really scary things (he winces). And very sad things.

But organic farmers in Fukushima do not know about this. They just say they want to stay in this village, and protect this village, and they want to continue the organic agriculture. Some of the consumers do not have the correct information and they are supporting the vegetables in Fukushima. I want to stop these things. I think this is the main issue. And it is very serious.

GLOSSARY

Japanese in Romaji (romanized spelling)	Japanese Reading	English
<i>aigamo-nouhou</i>	合鴨農法	A method of permaculture created by Furuno Takao incorporating ducks into rice-farming
<i>Aikido</i>	合気道	martial art using blending and non-force to control and neutralize an assailant
<i>Chiku</i>	地区	Area
<i>Chounan</i>	長男	eldest son in a family
<i>Edo jidai</i>	江戸時代	Edo Period - 1603-1867
<i>Ekichu</i>	益虫	useful insects
<i>Gaichu</i>	害虫	harmful insects
<i>Gennouyaku</i>	減農薬	low-chemical application for agriculture
<i>Gokuraku</i>	極楽	to live at ease
<i>Gyuufun</i>	牛糞	cow manure
<i>hara hachi bun me</i>	腹八分目	A Japanese saying: Eat to 80% full, suggesting moderation not gluttony
<i>Hiryou</i>	肥料	Fertilizer
<i>laido</i>	いあい道	traditional Japanese swordsmanship
<i>Shizen Nouhou Wara Ippon No Kakumei</i>	自然農法わら一本の革命	<i>The One Straw Revolution</i> - a seminal text on natural farming by Fukuoka Masanobu
<i>Ichiba</i>	市場	market place
<i>Idenshikumikae</i>	遺伝子組み換え	genetically modified agricultural products (GM)
<i>Jikatabi</i>	地下足袋	a kind of footwear with a separated big toe for increased grip and agility. Used by construction workers and farmers, but associated with ninja.
<i>Jiyuu-minshutou</i>	自由民主党	Liberal Democratic Party (of Japan)
<i>Jomon jidai</i>	縄文時代	Jomon Period
<i>Kama</i>	釜	a sickle
<i>Kansha</i>	感謝	a feeling of thankfulness
<i>Kateisaien</i>	家庭菜園	a home-scale vegetable garden
<i>Keidanren</i>	経団連	The Federation of Economic Organizations
<i>Keifun</i>	鶏糞	chicken manure

<i>kindai nougyou</i>	近代農業	Current-era agriculture (implies the use of chemicals)
<i>Koku</i>	穀	a standard measure of rice collected as a tax in the past
<i>Kome</i>	米	rice (uncooked or in plant form)
<i>Kosakunin</i>	小作人	Tenant farmers
<i>Marche</i>	マルシェ	derived from French: for market
<i>Matsuri</i>	祭り	Festival
<i>Meiji jidai</i>	明治時代	Meiji Period- 1868-
<i>Meishi</i>	名詞	business card
<i>Minshutou</i>	民主党	Democratic Party of Japan (DPJ)
<i>Munouyaku</i>	無農薬	chemical free agriculture
<i>Noushihyou</i>	農指標	National organization regulating JAS
<i>Nougyou kyodo kumiai</i>	農業協同組合	another word for Noukyo/JA
<i>Noukyou</i>	農協	the JA (Japan Agriculture, -the national agricultural cooperative)
<i>Nourinsuisanshou</i>	農林水産相	MAFF (Ministry of Agriculture, Forestry and Fisheries)
<i>Nouseiren</i>	農政連	The Japan Farmer's Union/ farmer's lobby for specific areas
<i>Nouhiryou</i>	農肥料	agricultural fertilizers
<i>Nouka</i>	農家	a farmer
<i>Nouyaku</i>	農薬	agricultural chemicals
<i>Omiyage</i>	おみやげ	souvenir gift
<i>Saiten</i>	採点	Marketing
<i>Senbakoki</i>	千歯扱き	rice-thresher
<i>San</i>	さん	Mr./Ms. - honorific that comes after a name
<i>Sensei</i>	先生	Teacher/ a title or honorific for teachers, doctors, lawyers, etc.
<i>Shachou</i>	社長	a company president
<i>Shizen</i>	自然	Nature
<i>Shizen nouhou</i>	自然農法	"natural farming"
<i>Shokuryo Kanrihou</i>	食糧管理法	Food control law of 1942
<i>Shoutengai</i>	商店街	A roofed shopping street
<i>Shumei</i>	しゅめい	An organization that conducts CAS structured natural farming
<i>Subete</i>	全て	Everything

<i>Takuhai</i>	宅配	referring to vegetable box delivery method
<i>Tameike</i>	ため池	a reservoir/ irrigation pond
<i>Taru wo shiru</i>	たるを知る	A Japanese saying: to recognize how much is enough and not to be greedy
<i>Teikei</i>	提携	The Japanese system of CAS- community supported agriculture- (A cooperative relationship)
<i>Teinouyaku</i>	低農薬	low-chemical application for agriculture
<i>Yayoi jidai</i>	減農薬	Yayoi Period
<i>Yuuki</i>	有機	organic farming method
<i>Yuuki hiryou</i>	有機肥料	organic fertilizer
<i>Yuuki nougyou</i>	有機農業	organic farming method
<i>Yuuki Nougyou Kenkyuu Kai</i>	有機農業研究会	Organic Agricultural Research Associations- they are typically established regionally but there is also a national one: JOAA -Japan Organic Agriculture Association
<i>Yuuki nouhou</i>	有機農法	organic farming method
<i>Yuuki nousanbutsu</i>	有機農産物	certified organic produce
<i>Zenchuu</i>	全中	The farm lobby portion of the JA

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