Apples and Regional Change: Life and Economy in Tsugaru, Japan.

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APPLES AND REGIONAL CHANGE:
LIFE AND ECONOMY IN TSUGARU, JAPAN

A Dissertation

Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

in

The Department of Geography and Anthropology

by

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Abstract

In this dissertation, I examine aspects of Japan's rural and agricultural restructuring using Aomori Prefecture's apple industry as a focal point. Though using multiple spatial scales, I concentrate most on changes in agriculture and economy in the Tsugaru region, Aomori's main apple-growing region. A historical overview of Tsugaru and its apple industry provides the background necessary for understanding today's circumstances. Archival and ethnographic methods examine modern-day changes and document the views of individual farmers and their families.

Located at the northwestern-most tip of Japan's main island, the Tsugaru region was historically one of Japan's most remote and impoverished regions. The introduction of apples in the mid-1800s transformed Tsugaru, providing it with not only a measure of economic security, but also a source of regional pride. Within just a few decades, Tsugaru had become famed for its apples, a fame that continues today.

However, like farmers across Japan, apple growers face a host of modern-day challenges. Japan's rapid urbanization and industrialization have led to urban overcrowding, rural depopulation, and a dearth of farmers. Most of Japan's farmers farm only part time, while an increasing majority near the age of retirement. At the same time, international pressures and domestic political changes have led to the gradual lowering of protective trade barriers and agricultural supports, the long-time buffers of Japan's largely small-scale farmers.
For apple growers, precipitous drops in apple prices have made recent years especially harsh.

These factors and others have led many farmers and farming communities to fear for their futures. However, while some will be driven out of business, others have tried to find means of coping, whether through new marketing or production methods, or through
Chapter 1 Introduction

1.1 Prelude

I first arrived in Tsugaru in the summer of 1997. Against the practical wishes of a Japanese travel agent, I had taken the bullet train and bus instead of the faster, placeless hop from Tokyo to Aomori City afforded by All Nippon Airlines. In planning my trip, I had heard of the remoteness of Tsugaru, the final plain perched on the northwestern coast of Japan’s main island of Honshu (see Figure 1.1). I had expected it to be rural, and though I had had traveled through parts of Shikoku and Kyushu where the trains only ran once or twice a day (the sign of true remoteness in Japan), I had still somehow expected Tsugaru to be more remote, rural, and rustic.

Guidebooks issued stereotypes that I later heard reissued by Tsugaru residents and non-residents alike. Tsugaru is cold, I had read with both skepticism and a bit of concern, so cold that people living there do not open their mouths to enunciate their words, thus rendering their dialect nearly impossible to understand for even native Japanese speakers. One travel writer, Alan Booth, had heard the same statement and had ventured to ask an obvious question: Hokkaido lies farther north and it is cold there. Why, then, are Hokkaido natives clear Japanese speakers? He got the same answer I once received from an innkeeper in the Japanese Alps, a grudging shrug.

Booth understood the more plausible reason for the Tsugaru dialect. Tsugaru was isolated from the rest of Japan for much of its history, separated by mountains, distance, the sea, and indeed, the deep, blustery snows. It is interesting
List of Prefectures

1 Hokkaido 26 Shiga
2 Aomori 27 Osaka
3 Iwate 28 Hyogo
4 Miyagi 29 Nara
5 Akita 30 Wakayama
6 Yamagata 31 Tottori
7 Fukushima 32 Shimane
8 Ibaraki 33 Okayama
9 Tochigi 34 Hiroshima
10 Gunma 35 Yamaguchi
11 Saitama 36 Tottori
12 Chiba 37 Kagawa
13 Tokyo 38 Ehime
14 Kanagawa 39 Kochi
15 Niigata 40 Fukuoka
16 Toyama 41 Saga
17 Ishikawa 42 Nagasaki
18 Fukui 43 Kumamoto
19 Yamanashi 44 Oita
20 Nagano 45 Miyazaki
21 Gunma 46 Kagoshima
22 Shizuoka 47 Okinawa

Note: There is no consensus as to which district Niigata belongs, either
Hokuriku or Tohoku. Gifu belonged to Tōsō before modernization of Japan, but now to Tokai.

Figure 1.1 Prefectures of Japan with Tsugaru shaded (from Yamamoto, 1987: 144)
to ask Japanese people about Tsugaru, however, for the name alone evokes an image of the coldest, most remote places one is likely to find on the main island. Tsugaru residents often say that the region’s long winters, draped in the deep heavy snows that sweep in from the Sea of Japan, contribute to the rugged, reticent nature of its people. Famous sons of Tsugaru include novelist Dazai Osamu (1909-1948), legendary shamisen musician Takahashi Chikuzan, (1910-1998), and generations of star sumo wrestlers whose regal portraits hang in many a small Tsugaru train station.

Tsugaru dialect and its difficulty play into the popular image, as well, as does the mention of Tsugaru in many a nostalgic, mournful folk song. To the twang of a shamisen, a three-stringed banjo-type instrument, singers with seemingly endless lungs sing of the region’s landscapes, places, and climate. Often-evoked images include the cherry blossoms surrounding Hirosaki Castle, the wildly drifting snows on the Tsugaru Plain, the harsh life of coastal fishermen, the fleeting beauty of apple blossoms, and a host of other regional markers that could possibly describe other places in Japan, but poignantly define Tsugaru.

Thus, with some of these images in mind and with plans of spending a year in Tsugaru researching the region’s famous apple industry, I road the bullet train from Tokyo Station north some 400 kilometers to Morioka City, the last stop on the current high-speed lines. The ride from Tokyo to Morioka takes about two and one-half hours, passing out of the concrete tunnels of Tokyo into the agricultural plains.
of the Northeast (Tōhoku) Region where paddy, villages, rivers and forests blur by in the silent, gliding speed of the bullet train. Once at Morioka, the journey

Figure 1.2 Aomori Prefecture (adapted from Kurota, 1996)
continues: another two and one-half hours to cover slightly over 100 kilometers.
The most direct route runs across the mountains on a bus inexplicably called the
“Yodel,” that links Hirosaki City to the bullet train lines and thus the rest of Japan.
Crossing through steep slopes of cedar, the Yodel finally arrives in the Tsugaru
Plain via Hirosaki City and a scene commonplace to cities across Japan: the
universal arches of a McDonalds restaurant and the pulsing neon of the ubiquitous
Pachinko parlors, pinball halls that turn a blind eye to anti-gambling laws. It was
not, exactly, the quaint rural town I had expected.

Hirosaki City, the region’s old castle town and modern-day cultural and
educational hub, sits at the base of the southern Tsugaru Plain (see Figure 1.2). Its
streets, in the nature of feudal defense strategies, wind and curve and end abruptly in
unannounced dead-ends. They were the bane of invading armies, residents in
similarly confusing modern suburbs explained to me, the urban planning that kept,
and still keeps, outsiders on their toes. In places, traditional-style awnings line
downtown sidewalks, shielding pedestrians and the streets from the winter elements.
In most places, however, the buildings are not traditional. More likely, they are the
eclectic mix of modern concrete, faded art deco, or the mish mash of styles
attractive and unattractive that make up Japan’s present-day cities. Big national
departments stores—Vivre, Itayokado, Nakasan, Daiei—hold the most prominent
places in the new urban landscape, though they too are now losing ground to
highway-side discount stores.

It is, however, just outside of Hirosaki City that more traditionally rural
panoramas materialize. In villages clustered along the hillsides, farmhouse roofs
gleam with red paint on metal, the fired luster of blue tile, or the deep texture of thatch. Old wood-frame farmhouses present weathered fronts decorated with carved panels and sliding paper doors. Farm storage barns (_kura_) are utilitarian in function but aesthetic in form, their thick wattle and daub walls designed to keep agricultural produce from freezing or overheating before modern temperature-controlled storage largely took over that job. White plaster seals in the bamboo, clay, and straw of the well-kept _kura_, while fancy versions sport the their owner’s seal or good fortune markers, long-tailed mythical turtles adorned in gold or blue paint.

Set against the backdrop of Mount Iwaki, the 1625-meter volcano that dominates the plain’s landscape, Tsugaru’s villages and farms can appear idyllic. As the last snow melts, farmers sow gardens on the dark soils. By late summer, neat rows of color and texture emerge: ruffled purple leafed _shiso_ (perilla, or beefsteak plant), tubular blue-green Welsh onions, elephant-eared lotus, and foot-long white radishes forcing their way out of mounded rows in gardens decorated with starry edible chrysanthemum. Paddies fill with green and ripen to gold, and apple trees droop with fruit: red, green, pink and yellow. At night, the flooded patchwork of paddy drones with the calls of countless frogs, and under the mid-summer sun, scents of earth and bog, grasses and fruits, flowers and agricultural chemicals simmer in the air.

The colors of summer and fall give way to monochrome landscapes of winter that even the pining regional folk songs do not exaggerate. Drifting snow ripples across the plain. Daily life turns to coping with snow, ice, and cold, and as weather forecasters predict the next fronts, snow removal crews plot their strategies.
Brigades of snowplows rumble along Hirosaki’s streets in the otherwise quiet hours of early morning, scraping and piling the snow, and siphoning it into trucks too small for the task to be taken away and dumped in the rivers. Homeowners combat the precipitation with brooms and shovels, knocking hazardous daggers of ice from their eaves and venturing out onto precariously slippery roofs to shove off heavy frozen sheets. The snow, however, falls too fast to be pushed or carried out of sight. It piles up as temporary hills, sooty roadside-mounds, and packed ice platforms. The geography of everyday life changes, for under the burden of snow, places seem to contract. With the spring melts, streets, gardens, and parks are almost unrecognizable in their new spaciousness. Roads across the mountains reopen, and villages come out of their dormancy as residents open their doors, shed layer upon layer of winter clothes, and begin to prepare for a new agricultural season.

However beneath even the new-born agricultural landscapes of spring, lie pervasive and chronic problems. Farmers will readily point out the blemishes: the paddy fields targeted for area reduction, abandoned apple orchards, and paved-over gardens. Meeting with farmers throughout the year I lived in Hirosaki, I kept hearing slightly different versions of the same story, save a few exceptions. You can no longer live on rice and apples alone, many farmers told me, the stranger and foreigner who came to their door to query them about their agriculture and their lives. The government has lowered the official rice price, apple prices have fallen to their lowest levels in decades, and protective trade barriers and subsidies have begun to crumble. A group of elderly women taking an outdoor lunch break complained about having to reduce the acreage of their rice fields as part of a
government plan. Low apple prices are all the more devastating as income from rice has decreased. The women, like many of their neighbors, fear that low prices may drive them out of farming even before their age requires it.

Indeed, whether by choice, or necessity, or a combination of both, very few farmers now exclusively farm for a living. Most earn the bulk of their income from off-farm jobs whether in the local agricultural cooperative, an agricultural processing plant or outside the sphere of agriculture completely, in offices, hospitals, schools, or delivery companies. Still others take seasonal jobs, travelling south to work on assembly lines or construction sites.

A friendly grandmother leaving her apple orchard at dusk says that she alone tends her apple orchard. Her children and grandchildren live in the prefecture but have no desire to take over the family farm. Her small orchard clings to a hill outside Hirosaki City. Despite a barely five-foot frame and a back crooked with age, she routinely negotiates tottery wooden ladders to reach the tops of her apple trees. What will happen to her farm when she can no longer take care of it? She says that she does not know, and has tried not to think about it. This is an answer and a dilemma common in many farm families. Young people are reluctant to go into agriculture. Difficult work and uncertain profits do little to encourage new farmers. Even many current farmers report that they do not want to push their children into farming. It is better, many will say, if a daughter marries a "salaryman" and has a more certain income; better too, that a son goes off to get an education and a well-paying job.
In the village of Tokko, a young farmer says that his children’s playmates illustrate the changing demographics of rural Japan. When he was a child in the same village some forty years ago, nearly one hundred children lived there. Today, only about a dozen children live nearby, the result of both today’s lower birth rate and young families moving out of rural regions. With fewer children in rural communities, schools have had to cut back on teachers or have shut their doors completely, sending village children to schools in larger towns and cities and further distancing them from the farm both geographically and emotionally.

The Ministry of Agriculture, Forestry, and Fishing, for its part, hopes that fewer farmers will lead into some long-hoped for agricultural reforms including larger scale farms, and more efficient, competitive, and diversified production. However, such reforms have been difficult to realize. Though rising slightly in recent years, Japan’s average farm size still hovers between 1 and 1.5 hectares (2.47 – 3.7 acres) depending on the region. Larger scale farmers, those with three or more hectares, often have to piece together land through leasing, most of the time on non-adjoint plots.

The future is not all bleak. While some farmers report that they will go out of business due to low prices, a lack of successors or other reasons, others have tried to restructure, or to simply wait out the price drops in hopes of a cyclical rebound. Across Aomori, farmers and communities have diversified to varying degrees and with varying degrees of success. High-value greenhouse crops occupy fields once claimed by rice. Others farmers have moved to more efficient production or have guided their produce towards expanding niche markets whether for organic, low-
chemical, or regional specialty crops. Aomori's prefectural government has also hoped to revive flagging agricultural communities through other industries, particularly tourism, but also high-tech manufacturing and nuclear fuel storage. With rural communities across Japan promoting tourism, specialty products, and industrial development, though, the competition is intense.

It is easy to wonder what the future will hold for Tsugaru and other rural regions like it. Meeting with farmers and agricultural officials, I heard various opinions. While officials spoke of efforts to promote greater scale and production efficiency, individual farmers often expressed concern about their future as well as the future of their village as they consider the problems of successors and brides, aging primary farmers, cuts in protective subsidies and tariffs, and drops in prices.

In this dissertation, I am most interested in examining how the region came to its present circumstances and how those circumstances are playing out on the present-day landscape and in the economy of Tsugaru. I feel that only through looking at Tsugaru's past and at previous transformations of its economy, society and images, can a clearer, richer picture of Tsugaru at the verge of a new century emerge.

To focus my study, I have chosen to look at Tsugaru through its most famous crop: apples. Apples arrived in Tsugaru simultaneously with the modern era, the formation of a unified Japanese state, and the reemergence of Japan in the international arena. The history of apple growing in Tsugaru is, indeed, the history of a region and a crop becoming more integrated into wider economic spheres. The marketing and consumption of apples, speak not only to economics, but also to
culture and the meaning of food and food production. Most concretely, however, apples contribute to the livelihoods of thousands of Aomori farmers. The crop is daily work, planning, and anticipation, and changes in the apple industry have very direct effects on the lives of farmers, their families, and their communities.

1.2 Introduction

Apples came to Tsugaru as one of the Meiji Era imports of the 1870s, and the new crop quickly came to provide Tsugaru farmers with a measure of economic security and regional pride previously unknown in the historically marginal region. The relationship between apples and Tsugaru has not always been easy, however. Farmers have weathered devastating typhoons, voracious insects, changing government policies, and the flux and flow of market prices.

In a way too, the region has also become a victim of its own hard work and traditions. The time involved in growing the beautiful apples favored by consumers far exceeds that required to merely tend a tree and wait until harvest time. Since the early years of apple growing, massive amounts of hand labor have gone into producing lovely but expensive and time-consuming apples. However, since the early days of apple growing as well, farmers have found that these stunning apples can fetch higher prices at the market. Apples as gifts, desserts, and side dishes have dominated the Japanese apple market, and the cycle of farmers growing pampered apples, and consumers buying expensive fruit (at least by Western standards) has continued.

Recently, however, imports and price drops have threatened Aomori’s apple growers. Despite the vigorous disapproval of Aomori growers, New Zealand-grown
apples entered Japan in 1994, and imports from the United States soon followed. Though only three years later, the imports had all but stopped, many apple growers fear that the crack in the protectional door will allow more imports in the future—imports that could out-compete domestic apples in terms of both price and taste.

This dissertation describes the history and culture of apple growing in the Tsugaru Region. Archival research, interviews, and surveys examine rural and agricultural changes at multiple spatial levels, from the individual farm household to the region's place within the state and global system. Historical research on the Tsugaru region as a whole traces the spread of apple growing across the region from the 1870s until the present, and relates changes in the industry to locational factors and to corresponding economic, political, and social trends. Research on the postwar apple industry focuses on events in the past thirty years and, as in the historical examination, looks at changes across a variety of geographic scales.

Although this research is focused on Aomori and apples, in many respects I hope for this case study to extend beyond a single crop and region. Aomori Prefecture's farmers and their places are unique, but many of the issues they face are common throughout Japan's rural regions, and to small-scale farmers throughout the world in the post-GATT era. Japan's rapid industrialization and urbanization have transformed the economies of rural areas and the lives of rural people. As fewer young people take over family farms, the average age of Japan's farmers has risen. Most farmers now farm only part-time, and farm sizes remain small. Suburban sprawl has engulfed agricultural villages near urban areas, while out-migration has drained remote communities. At the same time, international pressure
has prompted the Japanese government to promise more agricultural imports, and related domestic political changes have led to gradual decreases in agricultural subsidies, the long-time foundation of Japan’s farm economy. Although through the years the Japanese government has tried to reinforce the economies of rural areas with industrial incentives and agricultural assistance programs, regional disparities between Japan’s urban centers and rural peripheries persist (Sakakibara, 1998; Yamamoto, 1987).

The plight of the regions affects Japan economically, politically and socially. Urban overcrowding, rural depopulation, regional inequities, declining caloric self-sufficiency, and nostalgia for rural roots lost are common dilemmas in modern-day Japan. To understand Japan’s development, economy, and responses to such international concerns as agricultural trade, it is essential to better understand the situations in regions such as Tsugaru.

1.3 Objectives and methods

This research seeks to describe the interwoven aspects of life and work, politics and economy among apple growers in Tsugaru. Furthermore, it examines how rural lives, communities, landscapes and economic activities have changed. This study, then, has two closely related objectives.

The first is to examine changes in agricultural land use, farming techniques, crops, marketing practices, and production methods in Tsugaru. The second objective is to examine how changes in agriculture, especially changes in the apple industry, have affected farm families and rural communities. To understand the
effects of these changes, it is essential to incorporate a more humanistic perspective into the economics and politics of rural change.

With these objectives in mind, I based this dissertation research on both archival and ethnographic data mostly collected during fourteen months of field research in Hirosaki, Japan. A National Science Foundation/Monbusho Summer Institute grant, National Science Foundation Dissertation Enhancement Fellowship, and National Security Education Program Graduate Enhancement Fellowship funded the research and allowed me to affiliate with Hirosaki University as a Research Student (Kenkyusei). Enrolling at a Japanese university was essential in assuring access to university materials and support, as well as in forming contacts with university scholars and agricultural officials. As a Research Student at the Department of Agricultural Economics (later renamed the Department of Regional Environmental Science) at Hirosaki University, I had the opportunity to collect materials relating to the history of Tsugaru and apple growing. Hirosaki University maintains a strong focus on local regional studies, and its collections contain literature difficult to obtain in other libraries in Japan, let alone collections outside the country.

Through examining the history of Tsugaru, I hope to show how the region has developed, and how it has been affected by larger outside trends. More specifically, I broadly trace the spread of apple growing in the region, looking at who was growing apples, where, and to what effects. I also discuss issues relevant to agriculture as a whole, such as tenancy, state policies, and agricultural innovations.
To better understand current circumstances and how people in the region perceive them, I conducted a series of surveys and interviews and engaged in what social scientists now call participant observation. During the fall of 1997, I worked on an apple orchard, helping with activities such as thinning leaves, rotating apples for uniform color, and harvesting. Through talking and working with the men and women who routinely worked on the farm, I learned much more about the actual labor and social relations involved with apple growing.

The fourteen months of field research also afforded me the opportunity to meet with neighboring farmers and farming friends of acquaintances, in addition to friendly strangers who were willing to chat with a foreign student. Interviews with local and prefectural officials and agricultural cooperatives employees helped further my understanding of larger issues and trends in the apple industry and the agricultural sector as a whole.

To speak with a greater number of farmers and their families and to visit a wider variety of locations, I also conducted a set of three village surveys. With the help of a number of Hirosaki university student assistants, I administered 118 surveys which were nearly equally divided among three communities (Onoe, Itayanagi and Morita). I chose the three locations for both locational and thematic reasons. Onoe, located along the edge of piedmont and sprawling into the plain, for instance, is known for its crop diversification as well as its apples. Itayanagi, situated in the heart of the Tsugaru Plain, recently put in an apple-themed recreation center and apple processing center. Morita village, on the other hand, lies at the
northern edge of the apple-belt, an area where apple growing is more marginal, and the economies of apple growing are more tenuous.

The selection of participating households for the surveys was done with the assistance of local agricultural cooperatives officials who did their best to help me achieve my goal of a stratified semi-random survey. Through such a sampling, I hoped to allow for some measure of random choice while still incorporating readily known distinctions such as hill farmers as opposed to plains farmers, and part-time farmers as opposed to full-time or mostly full-time farmers.

I chose to work on the surveys with the agricultural cooperatives rather than conducting a completely independent survey for a number of reasons. On one hand, it is easy enough to obtain addresses of farm households. However, without the support of either the agricultural cooperative or the university, farmers are less inclined to participate in surveys. Almost all farmers belong to the cooperative, and cooperatives’ lists of addresses and crop production are useful in determining which farmers grow apples. At the same time, cooperatives’ officials know nearly all the farmers in a community, and they were helpful in recommending farmers willing to participate in a survey.

Local university researchers commonly go through the cooperative, sending out letters of intent with both the researcher’s seal, and the letter of request and the seal of the cooperative. Going through these known, established, and approved-of channels was the best way of conducting the surveys. As such, the choice of farm households was in the helpful hands of agricultural cooperative officials. Notifying farmers in advance of the day and approximate time of interviews helped assure that
respondents were both home and willing to talk. Association and introductions are vital in Japan. Prior letters of request from the agricultural cooperative often helped relieve uneasiness regarding the intent and extent of the interview. At the same time, affiliation with Hirosaki University helped me gain access to contacts in the agricultural cooperatives and helped in legitimizing the research to farmers.

Survey questions focused on several topics including household structure, landuse, changes in farming, farming practices and expected economic returns, and household labor practices (see Appendix 1). Broader, open-ended questions were also included so that farmers and their families could comment on issues such as the future of their family farm and of their community. I also incorporated questions regarding seasonal- and gender-specific activities and to hours worked for different types of household employment. In each case, I was most interested in how situations have or have not changed for farm families and what farmers consider to be the implications of these changes for their farm, their families, and their community. These questions and results will be discussed at greater length in Chapter 6.

Interviews ranged from formal interviews with agricultural officials conducted in the company of my Hirosaki advisor, Dr. Kanda Kensaku, to informal chats with farmers working in the fields or bathing in the local hot springs. Most interviews were semi-structured, following themes introduced in the survey. In this way, farmers could discuss topics they felt were important to their individual farms and situations. Many arranged interviews and surveys were conducted with the aid of a translator who could negotiate the strong Tsugaru dialect into either standard
Japanese or English. Though this is certainly not the ideal way to interview, it did have some benefits. Tsugaru farmers are not unfamiliar with researchers showing up at their doors, querying them about their incomes, crops, and concerns. Hirosaki University quite often sends teams of students, researchers, and faculty out into the farming communities, and local agricultural cooperatives often cooperate with university and prefectural officials in gathering data on the farm economy. However, it is still quite another matter to have a foreigner show up at one’s door, even if arriving with the proper introductions. Having a translator, most often a Hirosaki University anthropology student from a neighboring town, helped ease the unfamiliarity and tensions regarding both the interview and the idea of a foreigner conducting an interview.

Affiliation with Hirosaki University also allowed me to attend a number of seminars and to go on various field trips with faculty and students in the Department of Agricultural Economics. Participating in another student’s research on agricultural cooperatives in the western region of Aomori helped me better understand how agriculture in that region differs from agriculture in Tsugaru. Likewise, study trips to neighboring Akita and the coast of western Aomori dealt with large-scale rice farming, fishing, and forestry and also helped me to compare and contrast Tsugaru’s agricultural situation with those of other important agricultural regions of Japan.

Archival data were collected at a variety of locations. Hirosaki University’s library and the private and university holdings of the Department of Agricultural Economics, are bountiful sources of local agricultural statistics and regional case
studies focusing on Tsugaru, its agriculture, culture, and history. Similarly, the
Hirosaki City Public Library maintains a collection of regional reference materials.
Additional sources of data included the collections of various agricultural
cooperatives and government agricultural research sections, and newspapers
including the local “Tōdo Shimbun” and the national “Nihon Nōgyō Shimbun” (“The
Japan Agricultural News”). Some data in English were also obtained during trips to
the Tokyo area and visits to the International House Library.

1.4 Theoretical framework and related literature

This research examines changes in the Tsugaru region’s society and
economy using the apple industry as a focal point. As a regional study, this research
is purposefully broad, incorporating multiple scales and timeframes in the hope of
providing a richer description of an ongoing story of regional and agricultural
change. Regions, in Karen Wigen’s words, are “fulcrums where geography and
history, environmental resources and competing power networks, and household
reproduction and global change come together” (Wigen, 1995:16). Wigen, in
conceptualizing the framework for her historical geography of a Central Japan
sericulture region, clearly stated the breadth and structuring of a regional study.
“Regional analysis,” again in Wigen’s words, “… covers two distinct intellectual
processes. First there is an essentially synchronic look at the region as an integrated
economic unit. This requires reconstructing how a region is configured—the
territorial anatomy of production, circulation, and consumption within its borders—as well how its articulation into the larger economy takes place. . . Equally
important, however, is a diachronic analysis of how regions change: ‘how they are
constructed and reconstructed, and how they are just as readily torn apart in the flux of industrialization.” (Wigen, 1995: 18; Howell, 1991).

Wigen defined her study region as a functional region based on silk production and demarcated through that industry’s rise and decline. The Tsugaru region, I believe, should be seen as both a formal and a functional region. It is a formal region in that it exhibits a number of shared cultural characteristics ranging from a shared traditions, dialect, and folk arts. It is also functional first in its historical political boundaries formed by the Tsugaru fiefdom, and later through an agricultural economy in part focused on apple production. This, I think, makes the study of apple growing in Tsugaru all the more interesting and productive, for the apple industry both parallels the history of Tsugaru while also defining the history of Tsugaru. Tsugaru as a region has become intricately tied to apples over the past one hundred and thirty years. As such, the question of agricultural restructuring touches not only on economic restructuring but also on changes in the region’s culture and the ways in which the region presents itself.

A regional-level study seems apt in other ways as well. In particular, it provides a way of looking at agrarian change across a broader spatial template, something beyond the village-scale level of traditional ethnographies, yet more place-specific than macro-level discussions of agro-economic change. Numerous ethnographers have written wonderfully detailed studies focusing on lives and landscapes, and the social constructions and reproductions of villages, communities, and groups. The historical foundations for today’s studies of community change owe much to ethnographies of the late pre-war and early post-war decades.
Embree's study of Suye Mura (1939) represents the first important ethnographic work by a Westerner dealing with Japanese rural life. Cornell (1956) and Smith (1956) followed with works documenting life in mountain and agricultural communities, while Beardsley's 1959 study *Village Japan* set a high standard for the specialized monographs and villages studies that followed. Those who made return visits to their fieldsites recorded often-dramatic changes in life, labor, landscape and economy. Though communities welcomed modern conveniences and affluence, ethnographers and informants agreed that social cohesion and traditional life-ways had diminished (Dore, 1978; Norbeck, 1961; Smith, 1978).

Among more recent studies, Bailey (1991) documented how the northern town of Tanohata faced a shift from a primary industry-centered economy to a tourism-centered economy. Robertson (1991) also examined issues of identity, and identity formation and reformation, through her study of one town’s negotiation of the meanings of “native” and “newcomer.” The formation or search for “identity” has become an increasingly common theme in Japan Studies literature and has been looked at through case studies of tourism, festivals, and even global interactions.

The study of tourism flourishes in Japan, a country that has elevated tourism to the rank of pilgrimage, and where, through government incentives, regions vie for resort development grants and tourists’ yen. One branch of the literature that was of considerable use to my study looks at the meaning and commodification of rural regions through tourism. Creighton (1997) examined the marketing of nostalgia, rural imagery, and the “consuming” of rural Japan, while Martinez (1990) described a community’s presentation of self and national heritage. These are also themes...
touched on by Ehrentraut (1995) through the study of architectural production and heritage. Moeran (1983) and Ivy (1995) analyzed both the language of tourism as well as modern expressions of loss. Ivy's research, in particular, brings up theories applicable to the study of peripheral places. Through a number of case studies, Ivy surmised that when "the marginal is temporally inscribed within the nostalgic register as vanishing, it then functions as a special, and fetishized, guarantor of social status" (1995: 242). As the formerly marginal becomes central, rural regions have redefined themselves and their industries. Aomori Prefecture, for instance, has hopes of becoming Japan's "prefecture of culture and tourism." The development of tourism and shifting representations (for example, from cultural periphery to cultural hearth) of Aomori connects to the prefecture's agriculture, particularly in the promotion and marketing of specialty products.

At its heart, though, this study focuses on a crop and how it is grown, sold and consumed, subjects informed by both ethnography and agricultural economics. In both fields, there are numerous worthy precedents to follow. Moore (1990), Jussaume (1991), Latz (1989), and McDonald (1990), to name a few, have drawn detailed yet broadly applicable and themed examinations of farming communities in Japan through the study of such issues as land improvement, part-time farming, and industrial restructuring. Agricultural practices have been fundamental to most studies of Japan's rural areas from the post-war to the present, as changes in agriculture have had dramatic implications for rural communities and visa versa.

Since the end of World War II, Japan's rural regions have undergone rapid and extensive restructuring. Various authors have explained Japan's economic
development using classical dual-economy or two-sector approaches whereby the rural/agricultural economy provides resources necessary for the development of the urban/industrial economy (Franks, 1992; Hayami, 1975; Johnston, 1970). Lewis' (1995) and Fei and Ranis' (1964) neoclassical models of sectoral shifts based on rural labor surpluses are seen as seminal works in the dual-economy approach. As Oshima (1983) explains, rapid industrial growth provided employment for surplus rural labor which, in turn, provided additional income to farm families. As farmers used this income to purchase labor-saving machinery and consumer goods, domestic labor-intensive industries such as textiles expanded to meet demand. Increases in both domestic- and export-orientated production spurred the economy, drove up urban wages, and lured many rural workers to the cities in search of high-paying jobs.

Another modern trend common not only to Japan but, by definition, to regions throughout the world, is globalization. Jussaume (1998) found that Japan's agro-food systems have felt the affects of globalization particularly in meat and vegetable production and that the "causes of many of the changes facing rural communities are linked to transnational institutions over which rural residents have little control. . ." (1998: 410). However, rather than crushing homogenization descending on communities and production systems, Jussaume remarked that "local influences matter. . . Local conditions provide the context within which globalization expresses itself. Given that the globalization of production systems takes place by adapting to local conditions, it is likely that the observed impacts of globalization will continue to reflect local conditions" (ibid.).
What effects international trade and commodity flows will have on local areas is one of the main debates in globalization literature. While some have foreseen a global culture and economy in which we all eat McDonalds hamburgers, watch the same movies, and bow to the same transnational tycoons, others see the simultaneous development of both “cultural homogenization and cultural heterogenization” (Appadurai, 1990: 295). As Freidman stated, “Ethnic and cultural fragmentation and modernist homogenization and modernist homogenization are not two arguments, two opposing views of what is happening in the world today, but two constitutive trends of global reality (1990: 311). In other words, it would seem that at the very time places are becoming more linked, some places are either retaining, reviving, and/or forming a distinctiveness and regional character (Luke, 1994: 619).

In an increasingly international world, rural areas are certainly no longer isolated places of peasants toiling for their daily survival. Rural sociology literature has shifted to redefine its methodologies in light of multivariate uses of rural spaces and production systems. However, while scholars debate over what, and who, can define rurality, it is clear that rural regions are becoming increasingly interconnected at the local, regional, state, and international levels (Marsden, et al., 1990; Lawrence, 1997)

As places and economies become more interconnected and interdependent, debates have arisen over borders and the protection of national or regional cultures and economies. Within debates on international trade, food has often been among the most heated of debates, for as Watts and Goodman (1997), Ohnuki-Tierney
(1993), and Bessiere (1998) have noted, food holds a special and often sacred cultural place. It was, in fact, the issue of food imports that first prompted this research. In 1994 Japan lifted long-held apple quarantine restrictions. Aomori farmers, as rice farmers before them, protested with signs and flags and vehement speeches. While the initial round of apple imports failed to make much of an impact, the question of Japanese agriculture facing international competitors is still applicable. As more of Japan’s agricultural barriers fall, what will be the affects on Japanese agriculture? Moreover, if agriculture is to seriously decline, what will be the future of Japan’s rural regions?

Through studying the evolution of Tsugaru’s agriculture and through and examination of its present state, I hope to get a clearer picture of what the region has weathered as well as where it may be headed. The history and modern-day continuation of Tsugaru’s apple industry is, I believe, an interesting story, one that traces the unique history of Tsugaru, but also speaks to many of the issues facing rural regions throughout Japan.
Chapter 2 A History on the Edge

Place has shaped Tsugaru’s history, culture and economy. The region lies on the periphery, huddled on the northwestern-most edge of Honshu, buffeted by winter storms, and enclosed by mountains. Isolated by distance, climate, topography, and poverty, the region has spent most of its history on the edge of history, mentioned not for its strategic position in battles or its cultural achievements, but more for its devastating crop failures, frequent famines, wrenching poverty, and a lack of "high culture." In recent decades the image of Tsugaru as awkward country bumpkin has been largely reversed. However, in many ways the region still lies on the edge. The following sections present a brief history of Tsugaru as a means of better placing the dramatic changes brought about by Meiji innovations, in particular the introduction of apples.

2.1 Place names and places of the imagination

Ôshû—domain of the Ezo, so swift to take cover at every attacked so swift to retreat into their mountains when pursued. Ôshû—where everywhere the massive mountain ranges form a natural barrier to human traffic. Ôshû surrounded by the Japan Sea, tempestuous and inhospitable, and the Pacific Ocean, its waters barred in their course by the jagged Kamikita Mountains. Ôshû—with its thick winter mantle of snow, coldest place in all of Honshu, since time immemorial plagued by failed harvests. Pitiful Ôshû...

(Satô quoted in Dazai, 1998)

...it is always the case that the history of a group is also the history of the terms used to designate it... (Mormont, 1990:23).

Place names have marked the place of Japan’s northern regions both in the physical geography of the archipelago and in the imaginative geography of its
people. Historical names for Honshu’s northeast included Ōshū, Ōu, Dewa, Mutsu and Michi-no-oku, terms that combine various forms and pronunciations of words meaning “beyond,” and “on the other side of.” Michi-no-oku literally refers to the land “beyond the roads,” while Dewa, Ōshū, and Ōu derive from the word “frontier” (idehashi). Today a more steriley descriptive term, Tōhoku, literally meaning the “Northeast,” refers to the region and the six prefectures of Aomori, Iwate, Akita, Yamagata, Miyagi, and Fukushima that lie within it. However, images from the past carry over to the present. Like “pitiful Ōshū” of the above quote, the name Tōhoku continues to carry with it a variety of images and emotions, many of which were expressed more explicitly in earlier appellations.

In the geographic imagination of pre- and early-modern Japan, and even to some extent that of modern Japan, the northern lands lay beyond the centers of Japanese civilization. In the feudal era, these “lands beyond the roads” were portrayed as the domain of exiles and run-away lovers, highwaymen, non-Japanese Ainu (or Ezo), wandering pilgrims, ascetic poets, impoverished peasants, and mountain hunters—places not of civilization, but where one went to escape civilization.

Literature and poetry added to the imagery and a romanticized mystique of the far north. During the Heian period (792-1185) wandering poets and religious ascetics recorded their travels to distant lands. Unlike Western travel literature in which author/travelers sought out encounters with an yet-to-be described unknown, medieval Japanese writers tended to gravitate along familiar routes of so-called “poetic places” (utamakura) (Shirane, 1997). Discovery came as the writer
revisited landmarks of feelings and emotions, and poetic places became associated with certain characteristics. As few readers could actually travel to the far north, the region’s *utamakura* existed mostly as places of the poetic imagination, and regional imagery, or at least the imagery of the *utamakura*, became set through literature. In the poetic tradition of pathos, the far north emerged as a lonely place of browning reeds, thatched huts, autumn clouds, lonely exiles, poor salt gatherers, and struggling fishermen.

As new generations of writers experienced the poetic and actual places of the far north, new layers were added to the images. Basho, the great poet of Tokugawa (1603-1868) times, traveled to the far north in 1689 and recorded his encounters in a journal entitled *Oku no Hosō Michi* (Narrow Road to the Deep Interior). Basho visited the obligatory famous vistas and meditative points, however, he also added to what one writer has termed the “Yoshitsune-ization” of the north (Shirane, 1997). Yoshitsune, a principal figure in the 12th century Taira-Minamoto war remains Japan’s foremost tragic underdog hero. Unduly persecuted by his elder brother, Yoshitsune fled to the north in exile. Though history has him eventually committing suicide, legend has him and a loyal retainer journeying throughout a north that some folk tales extend to Hokkaido and even the Asian Mainland. Basho’s poems and notes recall the tragic Yoshitsune and other glorious past warriors, creating for them a dreamlike space of the past along the road to the north while adding another layer to its imagery.
2.2 Geography of isolation

The pathos-laden images of the north were not created from pure literary flourishing, however. In fact as well as fiction, Honshu’s northeast was long a frontier region, relatively unpopulated and impoverished when compared to central and southwestern Japan, and poorly connected by transportation and information. Basho’s journey to the “far” north took him only as far as the southern border of what is now Iwate prefecture. To reach the true end of the road, as a later Tsugaru writer pointed out, “you must walk twice that distance, and then you must continue until you reach the solitary peninsula on the Japan Sea side: that is Tsugaru” (Dazai, 1998). The lands beyond the “lands beyond” lay off the usual poetic circuit, though not off the map of medieval and early-modern Japanese history.

Tsugaru had long been one of the most remote regions of Japan and a place of some mystery in the minds of outsiders. Not only distance removed Tsugaru. Climate made it inhospitable, and topography isolated it from even its frontier neighbors. Most geographies of Japan divide the country into four broad regions: Eastern and Western (or alternately, Northeastern and Southwestern), and Front and Back. The distinction between East and West Japan seems to have existed for many centuries with differences in dialect, cuisine, history and climate being noted as evidence of the two regions, usually divided somewhere just south of Tokyo (see figure 2.1) (Nakamura, 1980).

In contrast, the idea of “front” (omote) and “back” (ura) Japan traces back only to the middle 19th century (Nakamura, 1980). Now considered a defamatory term, “back” Japan’s name stems for its snowy climate and isolation on the Japan
Sea side of Honshu. While not long in historical terms, the physical conditions that have led to this "back side" image are important to placing Tsugaru.

Figure 2.1 Front and Back, East and West Japan (adapted from Nakamura, 1980 and Sakaguchi, 1990)

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Honshu’s western litoral receives the brunt of winter snowfalls, a product of its position on the edge of the Asian monsoon system. The high mountains that make up the north-south running spine of Japan block moisture-laden winter fronts as they sweep across the Japan Sea from frigid origins in Northeastern Asia. Also called the Snow Country (Yukiguni), the Japan Sea regions, particularly around central Honshu, commonly receive up to several meters of snowfall a year. Long winters under a cover of snow so thick that it can bury houses, contributed to the region’s underdevelopment and left it less populated than the sunnier and drier Pacific coast. The same mountains that block the snows also served to block transportation and communication. Though ocean transport and trade long connected towns along the Japan Sea during the feudal period, few easy land routes connected the more-populated Pacific coast side to Japan Sea-side regions.

Additional geographic factors further served to isolate Tsugaru even within the already isolated realm of the “back side” of northern Tōhoku. The tall volcanic peaks of the Hakkoda mountains to the north, the Shirakami Mountains and forests to the south, and the sea to the west and north, confine the Tsugaru plain, a swampy lowland that follows the course of the Iwaki River northward into the Japan Sea (see Figure 2.2). Difficult to get to and less than ideal for agriculture until land reclamation efforts drained its bogs, the region remained poor and sparsely populated for much of its early history.

Distance and isolation work both ways. Long periods of semi-independence led to the development of distinctive Tsugaru traditions, arts, dialect, and culture. Today, the region’s people take pride in their folk music and crafts, the local
Figure 2.2 Physical features of Aomori Prefecture
character, and a dialect so difficult that even outsiders from as near by as the other side of the prefecture profess it nearly incomprehensible at times. The idea of unique Tsugaru culture, as well as often unfounded environmentally- and geographically-deterministic views of its causes, weave their way throughout the region's history. Typical stereotypes hold Tsugaru people as rugged, reticent, warm-hearted, simple, kind but occasionally stingy, stubborn, or prone to corruption and to over-indulgence in sake. In the worst light, Tsugaru people are country bumpkins; in the best, they are pure unsullied country folk. To list these hackneyed characteristics seems to condescend to stereotypes and defamations of rural people not only in Tsugaru but in other peripheral rural regions in general. Take away the cold and one might be describing the rural Appalachians, the Ozarks, or the Scottish highlands. However, these images and the region's efforts to overcome and reshape them in a positive light play an important role in local history and development.

2.3 Agriculture and rural life in the early modern period

Japan's environment and its physical geography have dictated the distribution and character of its agriculture. Located on the fringe of the Asian monsoon region, Japan's islands receive precipitation throughout the year from the late spring baiu or "plum rains," the summer and fall typhoons, and the winter fronts. With ample rain and a temperate climate the Japanese have, like much of monsoon Asia, come to depend on wet rice agriculture. Archeological records show that wet rice cultivation began sometime in the third century B.C. using techniques imported from China (Reischauer, 1989). Southwestern Japan's warm winters have allowed farmers to double and even triple crop, however in northern Tōhoku and
Hokkaido, shorter growing seasons and long, cold winters have generally mandated mono-cropping.

While Japan’s climate provides sufficient moisture for agriculture, the islands’ topography has severely limited cultivation. Hills or mountains with average slopes exceeding 15 degrees comprise some three-quarters of the country (Trewartha, 1965). Most agricultural land lies along the short, narrow river valleys, or within typically small alluvial fans and limited coastal plains. In some hilly regions, however, terracing has flattened hillsides and allowed for marginal rice paddy and dry field farming.

Japan’s steep young mountains and volcanic peaks have had other effects on the country’s development as well. The mountains leave little room for either land or river transportation. Few of Japan’s rivers are navigable very far inland, with most tending to be narrow, fast moving, rocky and prone to flash floods especially during the torrential rains of the summer rainy season.

Agriculture has had to compete with human settlements and rivers for the flat lands. As populations and urban sprawl increased, farmers were pushed out of some of the most productive agricultural lands, particularly in Japan’s three largest plains, the Kanto, Kansai, and Nobi plains. These plains, while still centers of agriculture, have also become home to the country’s three largest urban centers, Tokyo/Yokohama, Osaka/Kyoto and Nagoya.

Given the paucity of agricultural land and the growth of both urban areas and population during the medieval and early-modern periods, growing enough food to feed the country has long been a concern. Likewise, controlling water, both to
irrigate rice paddies and to protect fields and homes from flooding has preoccupied Japan’s leaders throughout the centuries.

In the Tokugawa period (1603-1868) land reclamation, water and irrigation projects, and new settlements set the stage for reforms in the modern era and molded the landscape on which Japan’s modern agricultural sector would develop. Indeed, one estimate claims that 72.3 percent of all irrigation facilities operating in the 1960s were established during the Tokugawa period (Latz, 1989). The Tokugawa government invested in and mandated numerous projects such as river channeling and diversion, dam construction, land reclamation, and irrigation canal development.

Tokugawa infrastructural development did not arise from purely altruistic motives. Taxes, in the age of a yet burgeoning cash economy, were calculated in rice. From the 1590s on, officials decided land taxes based on estimates of the potential yield of agricultural land (Totman, 1993). Local lords and the shogun-led government realized that the more rice that peasants could grow, the more tax they could exact. One contemporary regional ruler, Honda Masanobu (1538-1616), summarized his particularly draconian attitude toward peasant management as such: “The proper way to govern is to ensure that peasants don’t accumulate wealth yet don’t starve either” (Furushima, 1991: 48).

Infrastructure development was also mandated as a sort of social control. The government could require the amount of expenditures local leaders had to make, thereby forcing them to use their resources on projects, rather than financing or fermenting revolt. Water projects thus served multiple goals of producing more
tax, feeding the people, and stemming rebellion both at the peasant and fief level. (Yogo, 1981). At the same time, these indirect measures also increased the farming population and agricultural productivity. A prohibition on sword ownership outside the samurai class, the eventual quelling of war, and the setting of formal occupations and classes meant that more young men returned to and stayed in rural villages. Farming, at least in idealized theory, ranked highly in the Tokugawa Confucian-based class system. Though the warrior class claimed heir to the upper class, farmers in theory came next, followed by artisans and merchants. The Tokugawa, it is said, appreciated agriculture if not agriculturalists, giving privilege to farmers in name if seldom in practice.

To bring new land into production and to alleviate crowding in older settlement areas, the Tokugawa also encouraged the formation of new frontier villages. "Shinden" or "new paddy" settlements were new farming communities established on reclaimed or newly-created agricultural land. Land tax exemptions for the first three to five years after establishment assisted shinden developers, often local officials, but also rich merchants and groups of farmers. Draining shallow swamps and lakes, channeling rivers, and clearing uplands fields and forests brought much new land under production.

Many of the shinden settlements were, of course, located in the peripheries, in the northeast, the extreme southwest, and eastern Shikoku. Northern Tōhoku, the era's foremost frontier, had the greatest percentage of shinden villages per capita. In parts of present-day Iwate and Akita, some seventy-one to eighty percent of villages began as Tokugawa-era shinden. Farther north in the area that is now
In the Tsugaru region, the local Tsugaru lord took control of shinden projects and land reclamation as a means of increasing the prosperity, productivity and population of their domain. From the 16th century onward, Tsugaru lords had ruled the region from the castle city of Hirosaki. The city commanded on one of the most favorable areas of the Tsugaru plain with the castle strategically perched on a slight natural rise. Mt. Iwaki, the volcano to the northwest, buffered the castle town and the southern Tsugaru plain from the bitterest winds and snows of winter storms, making that area most favorable in the plain for agriculture. Farther north and west as the land became more swampy and the winters more severe, very few villages or farms emerged prior to the land reclamation efforts.

Controlling the Iwaki River, the main river running through the Tsugaru Plain, was one of the most immediate projects. Heavy spring rains and the melting of mountain snows sent the Iwaki raging over its banks and into neighboring fields and homes for centuries. Throughout the middle part of the 17th century, a series of levees and channels were constructed in an effort to subdue the river. Canals drained the marshes and primed the soils for agriculture. However, not only the marshes and the floods discouraged farmers from settling the western portions of the Tsugaru plain. Strong winds from the Japan Sea blew over the plain, carrying with them seedling-killing sands and salts as well as winter blizzards. In an effort to buffer the winds, the fief mandated massive afforestation projects. During the late 17th century, some twenty thousand pine and cedar saplings were planted along the
Japan Sea in a thirty-kilometer swath between present-day Tsuruta and Kizukuri. By the early 18th century, some 80,000 trees lined the coast, limiting erosion and creating the forested dunes still referred to as the “Byōbusan” (“screen mountains”).

Land reclamation, afforestation, and accompanying shinden settlements transformed the Tsugaru plain. In the fifty years between 1644 and 1694, the number of villages in the Tsugaru domain jumped from 370 to 825 and the rice harvest nearly doubled, rising from 2,360 to 4,450 tons. However, the new settlements and resultant increase in rice production did not ensure against crop failures and famine. In the era before the introduction of cold-resistant strains of rice, Tsugaru’s crops failed on an average of every five years (Dazai, 1998: 54-55). Cold weather, natural disasters such as typhoons and floods, and environmental degradation contributed to the periodic plight of agricultural communities.

Two famines in particular stand out both in the history of Japan and Tsugaru. The Tenmei famine began in 1783 with a cold spring that turned to a summer tarnished by the eruption of Mount Asama, a volcano northwest of Edo (Totman, 1993: 239-241). Crops in the Kanto region lay buried in ash, while throughout the northeast farmers faced the triple burdens of cold weather, early frosts, and ash-clouded summer skies. Tsugaru’s eastern neighbor, the Hachinoe fief is reported to have lost a horrifying 96% of its crops that year, 86% the next, and half of its total population through death or out migration (Wigen-Lewis, 1985: 104 quoted in Totman, 1993). In Tsugaru, the famine reportedly claimed some 100,000 lives in and around 1783, while elsewhere in the northeast the story was similar though the numbers often not as catastrophic (Totman, 1983; Hane, 1982).
The Tempō famine of 1820 once again brought wholesale famine to the country and particularly severe devastation to the northeast. Like the Tenmei famine, Tempō began with a cold, wet spring and continued into a cloudy summer and hard early fall frosts. Though mortality figures must be treated with some skepticism (Totman, 1993: 241), they undeniably point to the extreme suffering in northern villages. The Tsugaru region again recorded tens of thousands of deaths and evacuations between 1833 and 1839. Recorded in the death figures were also some nine thousand horses and an estimated 9,484 hectares of land that fell out of production as the population declined (Totman, 1993: 241).

2.4 Pushing the frontier

Famine, the search for a steady supply of primary resources, and fear of foreign expansion propelled the northward expansion of the frontier. Standing on the northern banks of Aomori on a clear day, one can see Hokkaido (ancient Ezo) across the Tsugaru Straits. Yet, despite its proximity, the island remained a vast unknown territory throughout most of Japan’s history. Tokugawa leaders gave control of Hokkaido to the Matsumae family in the early 17th century. Distance relieved the Matsumae of many of the common fiefdom obligations, leaving them relatively free to trade in fish, furs, and smuggled goods from northeastern Asia. Matsumae lands conceivably ran as far north as they liked, though neither the Tokugawa government nor the Matsumae themselves had a clear idea how far that might be. The Matsumae influence limited their control to Hokkaido’s southern tip and its western coastal fisheries, leaving the interior to Ainu hunters and traders (Totman, 1993: 274; Stephan, 1971).

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By the early 1800s, however, the first minor Ezo "boom" began. In the northeast, the Tenmei famine had spurred interests in developing a new frontier, one that could possibly provide some relief for the northeast and bring it out of its own frontier hardships and economic woes. The 1770s also brought increased tensions over Russian interests northeast Asia. Russian missionaries, explorers, hunters and fishers, had begun to ply the coasts of Sakhalin, Kamchatka, the Kuriles and Hokkaido. By establishing Hokkaido as Japan's territory and populating it with Japanese the Tokugawa hoped to stem the tide of Russian advances (Stephan, 1971; Lensen, 1959).

The history of Ezo/Hokkaido is important for the history of the northeast and of Aomori for several reasons. Hokkaido's development connects to the idea of the frontier and regional development in the peripheries. Before the "discovery" of Hokkaido, Aomori lay at the very end of the Japan's known culture. However, Hokkaido opened up a new, more-remote, and even more mysterious frontier. The early settlement of Hokkaido with its battles with the Ainu, the weather, and the land could be likened to that of Aomori in centuries past. However, unlike the old northeast, the new frontier would become the new national hope in the nineteenth century, a land of wide-open spaces and great possibilities.

2.5 From Tokugawa to Meiji

Despite famines and hardships, developments in the Tokugawa period undeniably set the stage for modern Japan. Land reclamation and water projects brought even peripheral lands into agricultural production. Settlements were established throughout Honshu, Kyushu, Shikoku and had begun to spread into
southern Hokkaido. Flourishing merchant houses in Osaka and Edo nurtured a burgeoning cash economy. Concurrently, “proto-industrialization” grew not only in the core cities, but also in the hinterlands (Osamu, 1986; Howell, 1992) as specialized sake and soy sauce makers, iron workers, cloth weavers and potters took advantage of increasing demands for finished products (Umesao, 1998).

Advances in technology and crops transformed agriculture particularly in the core regions and affected the responsibilities and opportunities for farmers in the peripheries. Indigo and rape seed, but especially cotton, became the great cash crops of Tokugawa Japan with cotton production spreading from Kyoto and Osaka down the Inland Sea coasts by the 1800s (Furushima, 1991). Cotton demanded fertilizer, a necessity that spurred the sardine industry in Hokkaido and the North Pacific and provided seasonal labor opportunities for northern farmers and fishermen.

The feudal era’s advances and the advances of the outside world brought Japan’s self-imposed isolation to an end by the latter half of the 19th century. In 1868, the Meiji Restoration abolished the old feudal government at the same time it plunged Japan into the modern, imperialistic, world. Though the young emperor Meiji arrived in newly renamed Tokyo (ancient Edo) to set up a new imperial palace, the real power behind the age lay in the hands of Meiji reformers intent on promulgating principles such as bunmei kaika (civilization and enlightenment) and fukoku kyohei (rich country, strong army). The development of a strong economy, military, and learned society were seen as means of both strengthening Japan and keeping it safe from Western adventurers and colonial intentions.
Western learning, fashions, music and technology streamed into Japan. In a matter of decades, railroads connected the provinces to the capital and steam ships replaced the old sailing vessels. Feudal lords and samurai lost their positions as the Tokugawa caste system was demolished and freedom of occupational choice allowed for new business opportunities. In 1871, the old domains became new prefectures, and a central government set about hammering Japan into a unified state.

In the northeast the newly-formed Aomori prefecture welded Tsugaru with its long-time bitter enemy and eastern neighbor, the Nambu fief. For a brief period the prefecture took the name of Tsugaru’s castle town and cultural hub, Hirosaki, and the Oshima peninsula of southern Hokkaido fell within prefectural borders. However, as the new northern frontier opened up, all of Hokkaido soon became a separate unit, and development efforts were focused further north (Noh and Gordon, 1974).

Under central government control, reforms for the whole of Japan were undertaken. Within a few years of learning of rail systems from the West, a network of railways connected far parts of the nation. By 1871, only four years after the start of the Meiji Restoration, a country that had just taken to rickshaws had a rail line connecting Tokyo’s Shinbashi station to Yokohama. One year later, a railway connected Osaka to Kobe, and by 1891 anyone with enough money, and the desire to do so, could travel by train from Tokyo’s Ueno station to Aomori (Hanley, 1986; Morita, 1991: 278). Telegraph, telephone, and electric lines later served to further link the provinces more closely to the capital.
Borrowing from abroad meant new fashions as well as immediate distinctions between who was fashionable and “enlightened” and who was not. Western coats and top hats bedecked the newly trendy urban elite, and ballroom dancing and baseball marked the cutting edge of style. The rural peripheries lagged behind in the fashion revolution, and differences in clothes, dialect, and culture suddenly made the gulf between “rural” and “urban” all the more pronounced.

*Woman in the Crested Kimono*, a biography of a late Tokugawa period/early Meiji era woman, reveals how the urban bias against Tsugaru came out even in those who held hereditary loyalties to the region. In response to Perry’s second visit, the head of the family ordered his Edo-based relatives and retainers to return to Hirosaki so that they might present a unified Tsugaru front against crumbling political order. However, many Tsugaru, their names not withstanding, had lived only in Edo. As Edo sophisticateds, they derided their relatives as “mountain apes,” and viewed their castle town of Hirosaki as bleak and provincial (McClellan, 1985: 67-8).

While the new Meiji culture affected views of rural and urban, new technologies affected actual agricultural work and production. The Meiji drive to modernize and to borrow from abroad, brought in new crops and new technologies. Meiji reformers also continued work on land reclamation, paddy reorganization, and frontier expansion. Agricultural surpluses helped to finance industrialization and surplus rural labor filtered into manufacturing. At the same time, the newly-established Meiji land tax also provided the government with revenue for industrial development, and capital for establishing a nationwide system of agricultural
experimentation centers, colleges, and research centers. Expanding exports of primary products contributed cash to the newly opened and expanding economy, as well (Hayami and Yamada, 1998: 127). In Aomori, though, the Meiji era is best known for introducing the crop that would forever change the local agricultural economy: apples.
Chapter 3 Saplings and Samurai

Apples came to Japan in the early Meiji era, accompanying an eclectic mix of things foreign that ranged from olives to constitutions to Shakespeare. Though but a single element in the sweeping scheme of Meiji changes, perhaps more than any other “introduction,” apples would transform the economy and landscape of Aomori prefecture as a whole and that of the Tsugaru region in particular. For the first time, the marginal farmers of Tsugaru were afforded with a measure of economic security and a source of regional pride. Since the middle 1800s, Tsugaru has been known for its apples, and through both good and bad times the region’s residents have celebrated the association.

The following sections describe the early years of apple growing in Tsugaru and Japan as a whole. Upcoming sections also cover related topics integral to the farm economy of Tsugaru such as the growth of dekasegi (seasonal labor) and agricultural cooperatives and associations, the rise and fall of tenancy, and the advance of agricultural techniques as well as agricultural hard times and booms.

3.1 Apples: ecology and diffusion

Apples are thought to have originated in the Caucasus region of Central Asia and Western China, spreading from a hearth in Persia and Kashmir, west along the trade routes to southern and western Europe and Asiatic Russia. The fruit is mentioned in accounts from the earliest historical times, and was known in ancient Persia and Rome before spreading into the Kazak region and eastern Europe (Watkins, 1995; Hatae and Saito, 1976). By the 13th century, Pearmain, and Costard-type varieties had become common in England, with Pippins likely arriving
from the European continent by the 17th century (Watkins, 1995; Nakamura, 1994). Though, as in Asia, an indigenous small crab apple existed in the New World, larger, sweet, edible fruit followed the path of European colonists. By 1625, apples grew on Beacon Hill outside Boston, spreading later throughout New England and southward into the Mid-Atlantic region. By the 18th century, apples had already diffused westward into Ohio, Indiana, and Illinois.

Varieties such as Pearmain, Pippin, Costard and Marygold dominated the early years of apple growing, but the apple was easy to cross and many varieties were quickly developed. By the 1700s, new varieties such as York Imperial, Jonathan, Rhode Island Greening, Baldwin, and Yellow Newtown filled orchards. Varieties more commonly eaten today such as Northern Spy, Rome Beauty, McIntosh, Ralls Janet, Delicious, and Golden Delicious came into production in the United States in the 19th century. By 1903, a publication by Cornell University could list some one-thousand varieties in New York state alone, the United State’s leading apple producer at the time (Nakamura, 1994). The development of apple orchards in the U.S. West, and in Washington and Oregon in particular, increased in the middle 19th century, just slightly later than the establishment of the first apple orchards in northern Japan.

In Eastern Asia, apples followed the Silk Road and trade routes across the Tien Shan to China. The larger, sweet apples developed in the West, however, did not make the journey into Eastern Asia. Instead, varieties of small crab apples came to western China probably one or two centuries before the present era (Hatae and Saitô, 1976: 2). The fruit later spread throughout eastern China and into Korea
before being taken, like so many other mainland goods, across the sea to Japan.

Although the apple’s first arrival into Japan was not documented, literature from the 8th to 12th century refers to genetic ancestors of two kinds of crab apples (*Malus asiatica* Nakai) known by the feudal period as “*ringo*” and “*rinki*” (Bessho and Soejima, 1992; Hatae and Saitō, 1976: 2).

Worldwide, the diffusion of apples traces certain climate zones. Apples thrive in temperate climates, regions with cold winters which restrict disease, and short, hot, low-humidity summers that promote large, tasty fruit. Today’s leading apple-producing regions are generally found between the 40th and 50th parallels in the Northern Hemisphere and include the northwestern United States, Italy, Turkey, northern China, France, and Germany, as well as the temperate coastal zones of Sweden and Finland. In the Southern Hemisphere, Chile, Argentina, South Africa, New Zealand, and Australia have become major producers of apples. The Tsugaru region, located at around 41 degrees north latitude, lies well within the optimal climatic range for apple production.

### 3.2 New crops and new lands

Japan’s and China’s modern apple industries stem not from the “native” crab apples, but from varieties introduced from the West in the latter half of the 19th century. In China, the American missionary, J.L. Nevius, brought apple saplings to Shandong Province in 1870. In Japan, Western apple trees ornamented the Edo garden of a feudal lord in 1867, the last year of the Tokugawa period (Nakamura, 1994: 9, 31). However, apple growing on a large scale began in the Meiji period. In 1871, Kurota Kiyotaka, a vice minister in the Hokkaido Development Agency
(Kaitakushi), returned from a trip to the United States with agricultural equipment, livestock, and fruit tree cuttings, including apples. Later in the same year another shipment of saplings arrived and by the end of the year, one hundred and fifty apple varieties had arrived in Japan (Nakamura, 1994: 32). The Meiji government set up experimental orchards for the new fruit in Aoyama outside Tokyo, producing saplings that would later be distributed throughout Japan (Neto, 1988: 28-29).

The names of mid-19th century varieties, some still popular today, others largely lost, filled Meiji catalogs: Ralls Janet, Jonathan, Cider Smith, American Summer Pearmain, Ben Davis, Famuse, Northern Spy, Red Astrachan, Lady’s Sweet, Sops of Wine, Sweet Bough, Munson Sweet, Westfield Seek-no-Further, Mother, and Winesap (Nakamura, 1994: 32; Hatae and Saitô, 1976: 184-190). During the forty-three years of the Meiji, researchers tested some 380 varieties of apples. Of those, fewer than ten were retained for commercial production (Sawamura, et al., 1993: 546).

Naming the new fruit caused some debate. “Ringo,” the common name for Japan’s native crab apples was modified to “Seiyô ringo” (Western apple) or “Ôringo” (large apple) to distinguish the new imports from the older fruit, “Japanese apples” (wa-ringō) or “small apples (ko-ringō) (Kanda, 1996: 39). Eventually, as Western apples became more common, they took simply the name “ringo.” While some individual varieties also took on Japanese names, Western names in Japanese approximations were kept for many varieties. Among common favorites favored with Japanese names, Jonathon became “Kôgyo” (Scarlet Jewel) and White Pippin, “Kinsei” (Gold Star), while Ralls Janet eventually took the name
“Kokkō” (Country’s Light), despite its popular Tsugaru name of “Yuki no Shita” (Beneath the Snow) (Hatae and Saitō, 1976: 190; Nakamura, 1994: 32).

The inflow of foreign fruits and vegetables came as a part of the Meiji government’s promotion of industry policy. The slogan “shokusan kogyo” (develop industry, promote enterprise) stood alongside other grandly energetic Meiji slogans as Japan’s leaders put the nation on a race to catch up and hold its own in the international arena. Developing like the West, many reformers believed, would help protect Japan from colonization by the West in an age when many of Japan’s Asian neighbors had already succumbed to Western imperialism.

Within the policy of promoting industry from agriculture to manufacturing, was the Western Fruit Varieties Encouragement Policy (Yōshu Kaju no Shōrei Seisaku) (Hatae and Saitō, 1976: 11). During the decade between 1871 and 1881, the government imported thousands of foreign fruit trees, including varieties of pear, crab apples, apples, cherries, Asian pears, grapes, figs, currants, apricots, plums, quince, almonds, lemons, and oranges (Hayashi, 1984: 155; Hatae and Saitō, 1976: 11). The Ministry of the Interior, as well as the Hokkaido Development Agency imported the bulk of the trees, included numerous apple varieties from primarily the United States, but also from France, England, Belgium, Germany, and other European countries (Nakamura, 1994: 31). Western missionaries and independent citizens returning from trips abroad also brought in cuttings and saplings.

The Hokkaido Development Agency and its associated agricultural projects, stands out as one of the most energetic projects of the Meiji era. Meiji reformers set
out to colonize, exploit, and "civilize" the vast frontier in a systematic and "modern" manner. Mining, forestry and fishery industries expanded beyond the historical domain of Japanese settlement, spreading along the western shores and southern peninsulas. The government offered land to settlers, resettled former political foes, and forced the Ainu, the region's long-time residents, to take up the plow in the name of civilization and production expansion. Agriculture, in the form of rice, field crops and orchards, transformed Hokkaido from a frontier and into the new "rice bowl" of the country. Under the guidance of the Hokkaido Development Agency, agricultural researchers, new crops, development money, and advisors flowed into the north island and contributed to agriculture throughout Japan.

Hokkaido's agricultural landscape is often said to resemble that of Europe or America. Large fields, wide roads, and the occasional barn that would not look out of place in the United States make up the present-day Hokkaido landscape, a landscape that dates back to the days of the Hokkaido Development Agency. Along with importing fruits and vegetables, agricultural equipment, and tools, the Meiji government also imported foreign experts, people to guide the production, give advice, and survey the land. According to one tally, some three thousand "oyatoi gaikokujin" (honorable hired foreigners) worked for the Japanese government during the Meiji Era, with British citizens making up nearly half of the population (MacPherson, 1995: 30).

One of the most important of these "honorable foreign employees" was Horace Capron (1804-1885), a veteran of the Civil War and former United States Secretary of Agriculture under President Andrew Johnson. By invitation of the
Japanese government, Capron left the Department of Agriculture at the age of sixty-eight and became Commissioner and Adviser of the Hokkaido Department Agency (Kanda, 1996: 11). Though he lived in Japan for only four years, Capron pushed for crop diversification and urged the planting of apples as well as other foreign fruits and vegetables. One of Capron’s assistants, Lewis Bormer, continued Capron’s efforts, importing apple trees among other crops, and lived and worked in Hokkaido for another decade.

The Meiji government imported new fruits and vegetables not only to expand the people’s diets, but also to serve as new means of gainful employment and cash income for a former samurai class who found themselves suddenly barred from their previous lives as tax-supported bureaucrats. Though some ex-samurai moved readily into the expanding capital-driven economy, others found themselves unemployed and with few skills. The government saw specialty agriculture and the relocation of former samurai to newly reclaimed lands as a means of not only promoting social stability, but also as an opportunity to open up new frontiers. Samurai who had opposed the new government often found themselves relocated to the northern frontiers of Tōhoku and Hokkaido. Military colonists were also stationed in Hokkaido and the Kuriles to populate the region and keep it safe from foreign intrusions.

The colonists, with the guidance of the Hokkaido Development agency and the government, embarked on exhaustive, though sometimes misguided efforts, to fill the reclaimed fields of the north. From Eruputo in the southern Kuriles to the southwestern Hokkaido coasts, former samurai and other colonists received some
two million fruit tree saplings (Hayashi, 1984: 155). Many of the new agricultural plans failed, and the bulk of the young saplings died over the first winter, as the colonists had no experience with the new crops or the harsh Hokkaido climate.

Yoichi, just outside Sapporo celebrated the first apple harvest in 1879 and for nearly the next three decades afterwards, the Hokkaido apple industry led by Yoichi, ranked number one in Japan. Yoichi apples traveled by steamers not only to Tokyo, but also to Russia. After the Russo-Japanese War (1904-5), apple shipments of some one-thousand tons per year steamed out from the western port of Otaru on route to Vladivostok. However, with the opening of the rail line between Aomori and Tokyo and the import restrictions imposed by the Russian Revolution in 1916, Hokkaido’s apple industry lost ground to other competitors, in particular the Tsugaru region.

3.3 Samurai, missionaries, and apples

The history of Aomori apple growing began in the spring of 1875 when three young trees arrived in the prefecture as part of the Promotion of Industry Policy’s goal of distributing new crops and techniques throughout the country (Hirosakidaigaku gakujyu zeminaaru, 1987). More apple saplings, as well as other fruit trees and berry bushes followed in fall of that same year, and just one year later, slightly over 2,200 trees had been distributed. Of these, apples numbered three hundred and eight, ranking third in terms of quantity after cherries (518 trees) and Asian pears (363 trees) (Hatae and Saitô, 1976: 33). By 1887, just over a decade later, the local economy had become so caught up with apples that the fruit
phenomenon could classify as an “apple boom” (ringo buumu) (Nakamura, 1994: 32).

Local history celebrates a slightly earlier arrival of the fruit. In this Japanese version of a Johnny Appleseed tale, John Ing, a United States Methodist minister stationed in Hirosaki, brought apples to a local Christmas party in 1875. A guest was so impressed with the fruit that he carefully stored the seeds until spring, then planted them in his garden. It is believed that the apple had derived from a White Winter Pearman from West Virginia; its seedling, named Indo, was later crossed to form Mutsu, one of the most popular apple varieties in Japanese apple markets today (Sawamura, 1993: 546). Regardless of the veracity of this story, Ing’s influence in the local apple industry continued. After the fruit became more established, Ing and a group of Protestant converts formed their own cultivation and discussion group devoted not only to their faith but also to the production and promotion of apples (Aomori ringo 120 shûnen kinen jigyôkai, 1995: 9). The group, named Keigyôsha (Reverent Production Society), cultivated a 6.4 hectare orchard in Fujisaki in the middle 1880s (Kanda, 1996: 131; Hayashi, 1984: 168). Tôô school, a private Christian school that Ing help found, also cultivated a large-scale apple orchard of ten hectares in the town of Itayanagi just north of Hirosaki (Kanda, 1996: 132).

Ing’s story has become legendary in Hirosaki history. Local accounts of the apple industry rarely fail to mention the minister, and today’s tour bus guides point to him as one of the founding fathers of the region’s beloved crop. Ing attained a fame in northern Japan that he would never know in his native country. When Ing
and his family returned to their Indiana farm, they lived in obscurity until, to the surprise of their neighbors, a Japanese ambassador with Hirosaki connections came to pay his respects (Shepard, 1979). Several of Ing’s Japanese students also went to study abroad in the United States, establishing an unlikely connection between the midwestern U.S. and northern Japan.

As in Hokkaido, though, it was the former samurai families who were the most influential cultivators of apples. In the old castle towns such as Hirosaki, one of the great challenges of the new era was “providing work for samurai families” (shizoku jusan) reeling from the revocation of their fixed employment lifestyles. In many cases too, former samurai as well as their retainers were returning to their home domains after being relieved of their appointments in Tokyo. In Hirosaki City out of over 7,000 households, more than some 3,000 were samurai households, many in desperate need of new occupations and incomes (Kanda, 1996: 28). As money making was, at the beginning of Meiji, still tainted with the Tokugawa idea of being a lower class occupation, many former samurai opted to try their hand at farming. Land grants helped encourage these new agriculturalists to experiment and also served to keep educated elites in the rural peripheries even after feudal restrictions on movements and professions ended (McClellan, 1985).

Kikuchi Tatee (1846-1912), a member of a former samurai household and the man who would come to be called the “founder of Tsugaru’s apple industry,” saw apple growing as a way for former samurai to make a living while also strengthening the Tsugaru economy. In 1877 Kikuchi, then in his early thirties, had traveled to Hokkaido to learn about the fruit growing industry there. He stayed at
Nanae, a small town then just outside Hakodate. At the time, Nanae boasted some of Japan’s largest agricultural experimentation centers. The Hokkaido Development Agency had amassed over a thousand hectares of land on which to set up an agricultural experimentation center, a fruit tree experimentation center, reclamation centers and rice research stations (Kanda, 1996: 22). Nanae’s experimental fruit orchards produced apples, Asian pears, peaches, damson, currants and gooseberries. Kikuchi, however, returned home to Hirosaki most impressed with the potential of apples. Later, at a Hirosaki meeting attended largely by former samurai family members, Kikuchi reported on his findings and expressed his conclusions that apples were vital for Hirosaki’s agricultural future. In his report, he stated,

A few years ago, western fruit trees were distributed. It was wondered how they would do in this Snow Country, but at Nanae they are all doing well. It seems that Western apples are suited to cold lands. I think that from now on samurai families’ ways of life will turn to apples. Japanese people’s lifestyles are also becoming brighter. We will likely change toward Western lifestyles, Western food. Fruit is already more than children’s sweets. The age has certainly come where adults, in order not to be defeated by Westerners’ physical strength, will find it necessary to eat meat and vegetables. Despite good efforts, nine times out of ten Jōwa’s [a former feudal lord] rice crop fails, yet he returns to Hirosaki. That is because we are only imitation farmers and in this way the [real] farmers cannot win. However, the peasants cannot grow the imported apples. It calls for book research. Thus, the new production will be by our hands” (translation of quote in Kanda, 1996: 29).

Kikuchi’s words come from a man who had taken to wearing Western fashions, sporting a properly turned up mustache and coat suit. They are also characteristic of a major drive in Meiji thought, containing the then popular idea that development (and even eating) in the way of the West would not only help fortify Japan, but would also help keep Japan strong and free of Western conquest. So too,
it was common for former samurai, the upper class of Tokugawa society, to take a lead in the new Meiji society. Holdover ideas from older times, such as the need for the samurai class to guide the peasantry, continued into the Meiji. However, with the opening of new schools and the development of nearly universal education, the exclusive influence of the educated former-samurai class did not last long.

Kikuchi Tatee became a leader in Tsugaru’s fledgling apple industry. With the help of other former samurai, he set up the “New Cultivation Society” (Kaikusha) to discuss and research apple growing techniques (Kanda, 1995: 31-32; Koiwa, 1997: 119). Kikuchi also helped organize several private discussion groups and regional symposia. Members traveled to other prefectures to learn about growing techniques and bring back saplings. Hirosaki groups held meetings with other apple growing groups from northeastern castle towns such as Morioka and Akita where former samurai families faced similar problems (Aomori ringo 120 shûnen kinen jigyôkai, 1995: 3-4). As the fruit became more established, Tsugaru’s apple leaders also set about cataloging apple varieties and names (Kanda, 1996: 30-33).

The former samurai founders dominated the early years of Tsugaru’s apple industry, forming relatively large-scale orchards in Hirosaki and neighboring towns such as Kuroishi and Fujisake (Koiwa, 1997; Aomori Ringo, 1966: 5). Some enterprising growers also began to set up their nurseries and shops to sell seedlings, saving other local growers the hassle and time of ordering trees from Tokyo, a common practice with apple growers in other northern prefectures at the time (Hirosakidaigaku gakuju zeminaaru, 1987: 26).
At the same time, Tsugaru's samurai founders pioneered the development and study of expert pruning techniques. Today, one can still find apple growers who trace their pruning styles back to the samurai founders, spend years learning the techniques, and practice them with the devotion of artists. Pruning styles have evolved over the years. Whereas the first apple trees were left to grow in natural forms, growers realized that keeping trees shorter and the limbs more horizontal could make orchard work easier. Certain styles of pruning also helped trees survive the thick, heavy snows of Tsugaru's winters. Figure 3.1 illustrates the evolution of major trends in pruning styles from the Meiji era up to the present.

![Figure 3.1 Evolution of apple tree pruning styles (adapted from Morita, 1991)](image)

The efforts of Tsugaru's samurai apple enthusiasts won the region fame throughout Japan. By the 1890s the "apple boom" had struck the nation, and even regions in southwestern Japan hoped to imitate the northern prefectures' successes.
In 1894, a journal recording the happenings of the Japan Fruit Meeting praised Tsugaru’s apple growers and touted the region and its apple industry as fine examples for other regions to follow (Aomori ken Ringo 120 shûnen kinen, 1995: 6-7). Tsugaru’s influential apple growers further promoted the region and the fruit as they traveled to national meetings and symposia. By the turn of the century, the fruit had become linked in the minds of consumers with the northeast but with Tsugaru and Aomori in particular (Tôô Nippôsha, 1974: 20).

3.4 Merchants and peasants

Although Tsugaru’s apple industry began as the exclusive domain of the former samurai, rich merchants and landlords quickly became interested as the profits from apple growing grew. In the second and third decades of the Meiji era (1887-1897), wealthy growers developed large-scale orchards largely on the flat lands and river levees of the south central Tsugaru Plain. In the Southern Tsugaru District, for example, a group of merchants and landowners established a ten-hectare orchard. In the early 1900s, a wealthy fish and game merchant from the same region had also invested in over nine hectares of orchard and some 3,800 trees (Hayahi, 1984: 168; Nôsei Chôsa linkai, 1982: 37, 63).

However, despite the early trend towards larger holdings, a variety of factors would eventually result in an increase in small-scale orchards and the dispersal of orchards from the plains and riverbanks to the surrounding mountain foothills. Firstly, even from the late 1800s, bouts of apple diseases and insect infestations plagued the region. Prevention required large amounts of hand labor, many hours of checking trees and spraying orchards with newly developed sprays such as
Bordeaux mix, a fungicide combining copper sulphate, lime, and water. Bagging fruit also began to become a more common method of not only combating disease, but also for producing colorful apples.

Placing bags around young Asian pears to protect them from worms and weather was a technique that had been practiced since the Tokugawa period (Aomori ringo 120 shûnen kinen jigyôkai, 1995: 9). Apples left to mature in the paper bags emerge at the end of the season thin-skinned and pale. Even a short exposure to the sun turns some varieties to shades of translucent pink and others to brilliant reds. As Tsugaru apple growers began to use the technique to fight insects, it became apparent that the brightly-colored apples that resulted from bagging could be sold for higher prices. However, placing and removing bags requires long hours of hand labor, as does disease protection. According to the farm records of one 1920s grower, crop management including disease and insect protection accounted for thirty percent of total labor, over 144 days per hectare on his apple orchards. Another eighty-one days of hand labor were required for bagging (Aomori-ken Ringo Shikenjô Gojunen Shi, 1981: 1135-6). With such labor demands on only one hectare of land, many owners of large-scale orchards found that they could not properly maintain their trees without hiring large numbers of outside workers. Cost and time constraints and the inability to care for large-scale orchards led to their break up and to a new era of relatively small-scale (0.5-1 hectare) orchards.

Furthermore, the monopoly of large-scale growers and samurai families began to diminish as apple saplings became more readily available from a variety of markets. In the 1890s when apples were yet a relatively rare luxury fruit to
consumers and Aomori’s rice was still considered poor quality, one mature apple
tree could bring as much profit as four hectares of rice (Tôô Nippôsha, 1974: 24).
Another popular comparison from the late Meiji boasted that one apple tree was the
equivalent of 16 bags of rice (Akita, 1990:173). While rich farmers and merchants
began to buy up flat lands for apple cultivation and the price of land increased,
smaller farmers began to look into growing apples on slope lands. The idea had
come about by reports of successful hillside mandarin orange (mikan) groves in
southwestern Japan. Hillside growing worked for apples as well, and small farmers
and individual villages began to reclaim common grazing, fodder and forest lands in
the mountain foothills.

While former fiefdom forests were transferred to government control and
became prefectural and national forests in middle 1800s, often lands on the lower
slopes were granted to villages as communal property. Under the new land tax,
agricultural lands became subject to tax and villages that had previously used
mountain lands communally and for free found to their dismay that they had to pay
to regain the use of their lands. However, as apple growing became more profitable,
villages found it worth the payment to reclaim their common lands and turn them
into orchards. In some cases, the village purchased the land and subdivided it
among individual farmers who were given several-decade-long leases if they would
cultivate apples and eventually repay the village. By the end of the 1880s, apple
cultivation in Aomori had risen to some one-thousand hectares, and the area was
continuing to increase (Trewartha, 1930; Aomori-ken Ringo Shikenjô Gojunen Shi,
1981)
One village to rise from poverty to relative prosperity through apple
growing was Shimouguchi. Shimouguchi Village lies approximately five
kilometers west of Hirosaki City’s downtown and today is actually incorporated
within the city limits. Up until the middle 1800s, farmers in the village grew mixed
grains and some rice, though the scarcity of flat land and the variable climate caused
harvests to be marginal, uncertain, and oftentimes unrealized. Later historians
would use the words “cold” and “destitute” to describe Shimouguchi before the
introduction of apples. Following the regional trend, a wealthy entrepreneur began
large-scale apple orchard growing in the plains of Shimouguchi. However,
eventually smaller-scale farmers began taking up the crop, turning hilly lands to
orchards and decreasing field crops in favor of apples (Table 3.1).

Table 3.1 Farm households and area of cultivated land by crop in Shimouguchi
Village (adapted from Nôsei Chôsa Inkai, 1982: 57)

<table>
<thead>
<tr>
<th>Year</th>
<th>Agricultural households</th>
<th>Rice (ha)</th>
<th>Apples (ha)</th>
<th>Other field crops (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1875</td>
<td>65</td>
<td>62</td>
<td>--</td>
<td>110</td>
</tr>
<tr>
<td>1905</td>
<td>81</td>
<td>56</td>
<td>10</td>
<td>66</td>
</tr>
<tr>
<td>1916</td>
<td>89</td>
<td>57</td>
<td>75</td>
<td>23</td>
</tr>
<tr>
<td>1926</td>
<td>101</td>
<td>57</td>
<td>90</td>
<td>15</td>
</tr>
<tr>
<td>1944</td>
<td>17</td>
<td>57</td>
<td>110</td>
<td>10</td>
</tr>
</tbody>
</table>

As in other regions of southern and central Tsugaru, apples “transformed” the
village, bringing higher economic security and a better standard of living for
residents (Nôsei Chôsa Inkai, 1982).
In hilly areas such as Shimouguchi, apples meant less dependence on marginal upland field crops and promised some returns even in years of poor rice harvests. Small farmers from peripheral villages also discovered that cultivating apples could oftentimes bring them more profits than those enjoyed by large plains farmers who continued to focus on rice and other grains. Though the prefectural government had viewed rice as the more important crop and apples as a minor cash crop, the profits from apples were convincing, and farmers who could afford to start and orchard invested in apple trees. (Aomori Ringo 120 Shûnen Kinen Jigyôkai, 1995: 22-3)

Apple consumption did not, however, grow in pace with production. Apples were a new fruit in a country where fresh fruits and vegetables were new to many people’s diets. Though still vigorously promoting apples at home, growers also began to look abroad for other avenues through which to sell their crop. Foreign trade opportunities expanded as Japanese trading companies established more contacts abroad. By the 1890s, Aomori apples were finding their way to shops in Vladivostok where, following the Sino-Japanese war (1894-5), the high price of apples had lured a group of Aomori entrepreneurs to establish apple shops (Hatae and Saitô, 1976: 369). Some growers had even looked into establishing orchards in Vladivostock and had been practicing their Russian in hopes of realizing a vast new market across the Japan Sea.

By the late 1890s, steamer ships from Hakkodate and Otaru, Hokkaido carried Japanese apples far afoot to ports and markets in Taipei, Manila, Harbin, Hong Kong, Shanghai, Bombay, Columbo, and Singapore (ibid. 785-8). In 1906, the
Tsugaru Apple Export company was set up allowing Aomori apple distributors to forgo the Hakodate middlemen and export directly from Aomori City’s port (Tōdō Nippōsha, 1974: 28). Though the Russian Revolution crimped the Russian trade, trade to East and Southeast Asia continued.

3.5 Tenants and landlords

Increased production and the trend away from larger-scale orchards did not, however, result in the demise of large landlords or a rise of private land ownership among small-scale farmers and orchardists. Tenancy, a situation common throughout pre-World War II Japan, rose to especially high levels in the poorer regions of the Northeast. The Meiji era had given private citizens the right to buy, own, and sell land. At the same time, however, it had also ushered in a cash-based economy that forced peasants to pay land taxes not in rice, as had been the common payment of the feudal era, but in cash. A general land tax of three percent of the estimated land value came into effect, though rates varied slightly depending on the type of land and on the type of farmer. For example, very low taxes were established for previously untaxed grasslands and forestland, and tenants received a slight tax break compared to landlords (Moore, 1990: 283; Yamamura, 1986).

Scholars have called the Meiji land tax possibly the “single most important reform of the Meiji Restoration” (Hayami, 1975: 47). The tax established individual rather than communal responsibility for taxes and ushered in modern, private property rights (Brown, 1987; Kawamoto, 1991: 76). Hayami (1975) has estimated that farmers needed to market approximately one-fourth of their produce in order to satisfy the land tax, however, with yields out of the taxing equation, farmers who
could strive to increase efficiency and productivity (Yamamura, 1986). Capital investment in fertilizer, equipment, and irrigation could pay off in the form of higher productivity in the long term. However, the trend toward increased capital investment concurrently increased farmer’s dependency on the market and vulnerability to market fluctuations.

Farmers not only bought more agricultural supplies; they also bought more household goods and processed food. Small crafts industries specialized in straw mats and shoes, while others made miso (fermented bean paste), tofu, soy sauce and pickles. Cotton clothes became more common even in Tsugaru where in the past, despite the cold winters, hemp had been the commoners cloth. As society became more consumption-oriented, farm family members were freed of traditional labor demands such as weaving straw and hemp during the winter months (Koiwa, et al. 1987: 50). However, the increased demand for cash concurrently forced more farmers away from the farm and into factories or seasonal employment, a topic discussed in greater detail in later sections.

The new land tax also played a role in increasing the rates of tenancy, for with private ownership of land incorporated both the right to buy and the plight to lose land. In the historically poor and marginally productive Northeast, years of poor harvests forced many small landowners to sell their holdings and enter into tenancy agreements with large landlords. Newly prosperous merchants, sake brewers, and financiers over time amassed vast plots of prime rice lands. Landlord holdings tended to increase as the land grew more marginal. In the northern Tsugaru district town of Goshogowara, for instance, a dry goods merchant named

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Sasaki Katarō (1840-1914) rose from humble small farm origins to become one of the largest landowners in the prefecture with paddy holdings of some 460 hectares (Koiwa, et al. 1987:51).

Tenancy rose rapidly in the late 1800s particularly after the Matsukata Deflation of 1881 slashed rice prices that had nearly doubled in the previous four years (Yogo, 1981: 188). As shown in Figure 3.2, by 1908 slightly over forty-four percent of Aomori’s farmers were in tenant arrangements, a rise from twenty-five percent in 1883. Overall, Tōhoku saw the sharpest increase in tenancy. Between 1883-1884 and 1922, tenancy had increased by twenty-nine percent nationwide and seventy-three percent in Tōhoku (Smethurst, 1986: 66).

![Rates of Tenant farming in Aomori Prefecture](image)

Figure 3.2 Percentage of tenant farming in Aomori Prefecture (Koiwa, et al. 1987. pp 50, 83).

Modern scholars continue to debate the landlord’s legacy. Were they the oppressors of the peasantry, keeping small farmers poor and in debt, or were they benevolent teachers and community managers? Certainly, there is no set answer, as history suggests that landlords ranged from cruel to generous with all degrees between represented. Smethurst noted that the increase in tenancy in Tōhoku
included the transformation of semi-bonded servant/peasants into semi-independent tenants, a move up rather than down the economic and social ladder. So too, a landless tenant who cultivated large holdings could be better off than a landed small-holder and far more secure than a landless day laborer with no cultivating agreements (Smitka, 1998: 281-2). Additionally, some farmers chose to farm tenanted land to augment production (Smethurst, 1986: 66).

Waswo (1977) also suggested, however, that in addition to the image of the carefree landlord living off the suffering of his tenants, other landlords brought innovations to agriculture as well as the power of tenants. As the founders of Tsugaru’s apple industry had realized, the average peasant could generally not understand the scientific and academic literature describing new crops. Landlords with the time, money and education to do so could bring new crops into their communities and experiment with them on their own lands. Across Japan, landlords also initiated land reclamation, tested new machinery, and experimented with new varieties of rice and other crops.

Indeed, as Waswo contended, landlords in some ways became the victims of their own devices. As the new crops such as apples, mandarin oranges, grapes, milk, pork, and beef grew in popularity, small farmers had more choices and greater potential for higher income. Increasing rates of literacy and non-farm employment opportunities also contributed to peasants becoming less dependent on landlord elites. By the 1920s, tenants in Japan generally enjoyed larger incomes, used more advanced farming techniques and were more educated and economically savvy than ever before in Japan’s history (Smethurst, 1986).
3.6 Poverty or prosperity?

Improvements in agriculture and the growth of the national economy drew Tsugaru up to new levels of prosperity. “Cold” villages were “reborn” with apples; land reclamation created new space for rice, and improvements in rice varieties provided better yields. At the same time, growth in industry provided employment opportunities outside of agriculture. Rail transportation lessened the burden of distance between Tsugaru and the center. Mass produced goods reduced labor requirements, and improvements in the agricultural infrastructure, crop varieties, and the distribution system softened the effects of poor harvest years. Relative to its past, Tsugaru (and rural Japan in general) was doing better. Within agricultural production, apple production was on the rise, with area and yields generally increasing in the same period.

The key word in this discourse, though, is “relative.” Smethurst (1986) disputed the notion of northern Tōhoku wracked in perpetual misery and malnutrition, citing the high percentage of the region’s military recruits passing their physicals in the 1930s. Despite devastating crop failures, as well, no outbreak of massive death such as occurred during the Tenmei and Tempō famines occurred in any of the famines of the modern era. However, the birth of the modern age did not remove rural Japan entirely from its past demons of crop failure, famine and, to varying extents, life on the margins.

Hane (1982) quoted contemporary newspaper articles and journals that portray northern Tōhoku’s people as a people clearly on the edge of society and economy. Twenty-four famines struck the north in the Meiji period, followed by
four more in the Taisho. 1885 saw crop failures throughout the country. Northern villages especially suffered, as according to a government report cited by Hane, some 70 to 80 percent of Aomori’s people were “living like animals.” (Hane, 1982:114). Hane goes on to quote reports of desperate peasants selling their daughters into prostitution, scavenging the mountains for wild vegetables, and even eating the inner bark of trees during particularly harsh famine outbreaks. Excerpts from novelist, essayist and reporter Shimomura Chiaki’s 1932 report of his travels through the famine-struck northeast recount the region’s despair. In the following section, Shimomura relates a talk he had with an a Tsugaru woman returning home from Aomori City where she had sold her daughter to a brothel:

...The old woman, as if she were talking to herself, began to say something like the following: “In our village we were able to harvest only 2 to [about one bushel] from 1 tan [0.247 acres] of rice field. So we all have to buy rice from the outside. But we need money for that. To get money we have to make charcoal. But for that we have to buy wood. Seventy percent of the wood is government owned. Even if we want to produce one sack of charcoal, we have to pay cash for the government’s wood. So, the farmers in our village are at the end of their rope...

The old woman was not as ignorant as she appeared to be. She knew that 70 percent of the woodland in Aomori prefecture was government owned, and she had her own opinion about this situation. She continued, saying roughly the following: “The farmers around here can still sleep under futon [a comforter like bedding] if they are lucky. If you go west from here to the villages in North Tsugaru and West Tsugaru counties, not a single futon can be found among the farmers. They all sleep on rice straws. They spread rice straws underneath and place a miscanthus mat on top of that. The farmers sleep on top of the mat and cover themselves with mats made of seaweed. It’s warm enough but it is rough and coarse, and nothing at all like futon.”

A few days ago I was surprised that peasants living in the mountains of Iwate lived like primitive natives, but I was surprised again at the story of the harsh life of Aomori peasants. The other day, a peasant who also slept on a straw bed bellowed indignantly: Of course we have to take care of the problem of

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famine, but we must take this opportunity to show what a primitive, miserable existence the peasants of Iwate and Aomori lead to this day, and open the eyes of the big consumers living in the cities. We must expose before the eyes of government officials the fact that in this enlightened age of Shōwa there are Japanese who even in normal times eat millet and barnyard grass and sleep on straw beds (Hane, 1982: 131).

Looking beyond exceptional years and cases of hardship and famine, Aomori and the northern Tōhoku region in general lagged in development relative to central Japan. While the silk factories sprang up in central Japan, Tokyo’s financial culture boomed, and Osaka’s trading network expanded, the northern regions mainly contributed primary products including lumber, ore, agricultural goods, as well as labor and crafts products. However, as another author of the time effused, the north was developing too, and in doing so, leaving behind its “barbaric” past. In The Introduction to the Industries of Ōshū, quoted by Dazai, the geographer Satō Hiroshi wrote:

The geography books all tell us that Ōshū lies in Honshū’s farthest northeaster corner, and that food, clothing, and shelter there are all of the rudimentary kind. In the past the roofs were thatched with grass, shingles, or cedar bark, but nowadays most people live under tin-plate roofs. They cover their heads with kerchiefs, wear baggy working pants, and from the middle classes down content themselves with very plain fare. Is this really true? Does the land of Ōshū have so little in the way of industry? Is the north the only part of the country yet to be touched by the twentieth century, a century so proud of its great speed?

No, that is already an Ōshū of the past. Before one can discuss the Ōshū of today, one should recognize that it is imbued with the same pent-up energy that existed in Italy immediately before the Renaissance. Culture and industry have benefited from Emperor Meiji’s interest in education, which rapidly made its influence felt even in Ōshū’s remotest nooks and corners. The harsh nasal twang so characteristic of the speech of its people disappears as the standard language is promoted. The dwelling place of ignorant, barbarian tribes which one wallowed in the mire of primitive conditions has received the bright light of education,
and behold! Reclamation follows reclamation, and day by day the number of fertile fields increases. Improvement follows improvement, and every day the cattle, forestry, and fishing industries wax richer. What bodes even better is that with its low population density the region has a high potential for future development... The 6.3 million people of the six prefectures of Oshū do not neglect the distinctive industries of their ancestors, but increasingly they seek new ways to develop them. The migratory birds may roam forever, but the rough-and-ready people of the north need wander no more: they grow their rice, sell their apples, run their splendid glossy-coated colts on the wide moors that border majestic forests, and steer into harbor boats filled to the gunwales with their dancing, silvery catch (quoted in Dazai, 1944, translated by Westerhoven, 1998: 59-60).

Both quotes point to common outside images of the northeast. While Sato praises about the northeast’s potential, he does so in reference to its so-called barbaric past. Regional dialects and histories are seen as best tossed aside as the region’s people become integrated into the national plan and culture.

3.7 Interwar agriculture

Just as it is difficult to make generalizations regarding the state of rural life in the late Meiji and early Taisho, it is difficult to find scholars in agreement on the state of agriculture during the interwar period. A number, however, refer to the interwar period as one of stagnation. Compared with the bold leaps of Meiji, production in some agricultural sectors leveled out or fell in the period between the two world wars. Cotton and indigo, for instance, suffered in the face of international competition and exports, and silk crashed with the Great Depression. Yet, at the same time, the growing urban population demanded ever increasing supplies of fruits, vegetables, and rice (Hall, 1984).

Dramatic gains during Meiji had welled up from, in Hayami’s (1975) words, a “backlog of indigenous technological potential previously dammed by feudal
constraints.” However, increases in agricultural area produced by land reclamation in the peripheries began to flag as most of the accessible, easily convertible lands had already been brought into production. Nevertheless, as Hall (1984) pointed out, agriculture did progress through expanding aggregate outputs, and improving yields and labor output. Experimentation had led to the discovery of more disease- and cold-resistant varieties of rice, particularly Riku-u No. 132, a variety that boosted yields in parts of Tōhoku by forty-seven percent (Hall, 1984: 602-3). Likewise, in Aomori, apple processing produced more value-added products such as hard apple cider, jams and juice (Tōo Nippōsha, 1974: 49-50).

At the same time, however, shifts in investment drew innovative energies and capital away from agriculture. In regions with industrial growth, many landlords found it more profitable to invest in industry rather than in agriculture or agricultural innovations. In the move from cultivator and educator to industrial financier and player, came the rise of the so-called “parasitic” landlord, the landlord who did not farm yet lived off the labor of his farming tenants (Hayami, 1975).

However, it is again important to recognize regional differences. Continued industrial development in the core prefectures expanded the gap between industrialized and non-industrialized regions. In the northern peripheries, farmers had few outside employment opportunities. When they did engage in off-season work, it was more likely to be in fishing and handicraft production, or in industries associated with primary productions such as apple, dairy or rape seed oil processing and charcoal manufacture (Waswo, 1977: 130). Koiwa, et al. 1987). Tōhoku landlords, unlike the “parasitic” non-cultivating landlords characterized by Hayami...
had fewer options to invest their capital, and thus the tradition of resident landlords cultivating a portion of their land and taking an interest in village affairs continued longer in the north (Waswo, 1977).

Yet, while the Tōhoku landlord may not have had as many industrial opportunities for investment, the economic depression that led into the war years caused some landlords to reclaim land for their own use, a practice leading to further strife between owners and tenants. Almost non-existent before the 1920’s, tenant disputes in northern Tōhoku had risen by the mid-1930s (Smitka, 1998: 329). As Table 3.2 shows, Tsugaru followed this trend. Within the region, more tenant disputes erupted in the more peripheral and poor northern and western Tsugaru districts. Southern Tsugaru also saw quite a number of disputes, though suffered less per capita than the more peripheral districts.

Table 3.2 Reported cases of tenancy disputes by district in the Tsugaru Region, 1926-1935 (from Koiwa, et al., 1987: 145).

<table>
<thead>
<tr>
<th>Year</th>
<th>East Tsugaru</th>
<th>West Tsugaru</th>
<th>Middle Tsugaru</th>
<th>Southern Tsugaru</th>
<th>Northern Tsugaru</th>
</tr>
</thead>
<tbody>
<tr>
<td>1926</td>
<td>--</td>
<td>1</td>
<td>--</td>
<td>1</td>
<td>--</td>
</tr>
<tr>
<td>1927</td>
<td>--</td>
<td>2</td>
<td>--</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>1928</td>
<td>--</td>
<td>8</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>1929</td>
<td>1</td>
<td>13</td>
<td>2</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>1930</td>
<td>--</td>
<td>22</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>1931</td>
<td>2</td>
<td>19</td>
<td>5</td>
<td>13</td>
<td>21</td>
</tr>
<tr>
<td>1932</td>
<td>10</td>
<td>23</td>
<td>7</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>1933</td>
<td>15</td>
<td>46</td>
<td>16</td>
<td>41</td>
<td>26</td>
</tr>
<tr>
<td>1934</td>
<td>38</td>
<td>42</td>
<td>11</td>
<td>57</td>
<td>18</td>
</tr>
<tr>
<td>1935</td>
<td>57</td>
<td>37</td>
<td>13</td>
<td>42</td>
<td>115</td>
</tr>
<tr>
<td>Total</td>
<td>123</td>
<td>213</td>
<td>56</td>
<td>185</td>
<td>38</td>
</tr>
</tbody>
</table>

Further, Japan’s economy, both rural and urban, had steadily become more integrated into the world economy and thus increasingly vulnerable to the economic circumstances of other nations. While America spun into the “Roaring Twenties,”
Japan wavered in what one author (Livingston, et al., 1973) has termed the “Sputtering Twenties.” The devastating Tokyo Earthquake of 1923, ill-timed deflationary measures that coincided with the American 1929 crash, and price fluctuations affected all levels of the Japanese economy. In the countryside, real income fell by one-third during the height of the depression (Livingston, et al., 1973: 336). Silk and sericulture areas suffered the most as luxury fabric markets in the United States and Europe retracted.

Price fluctuations for rice exacerbated by increased rice “imports” from Japan’s growing collection of colonies affected farmers across Japan. Still, though the government sent rice-growing technology to the colonies and imported colonial rice, tariff protection of the larger colonial rice market and domestic aids helped to shield Japan’s farmers from increasingly competitive world rice markets. Price drops, though bad, may not have been as severe as they could have been in an open market (Brandt, 1993).

Table 3.3 Drops in the value of agricultural products between 1919 and 1935. For comparison’s sake, the numbers in parentheses represent index prices based on the base year 1919. (from Koiwa, et al., 1987: 142).

<table>
<thead>
<tr>
<th>Year</th>
<th>Value of all agricultural products (thousand yen)</th>
<th>Value of Rice (thousand yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1919</td>
<td>65,093 (100)</td>
<td>44,138 (100)</td>
</tr>
<tr>
<td>1926</td>
<td>51,854 (79.6)</td>
<td>30,665 (69.4)</td>
</tr>
<tr>
<td>1932</td>
<td>22,692 (34.9)</td>
<td>9,624 (21.8)</td>
</tr>
<tr>
<td>1935</td>
<td>36,844 (56.6)</td>
<td>13,688 (31.0)</td>
</tr>
</tbody>
</table>

In Aomori, agricultural prices fell dramatically and the price of rice precipitously (Table 3.3, above). The sense of crisis rose after several bank failures
in the late 1920s, a series of natural disasters including a tsunami tidal wave, crop failures in 1931, 1934 and 1935, and an attack of *Monilia*, a devastating apple tree disease (Koiwa, et al., 1987: 142).

The lure of high urban wages fueled the exodus from rural areas to the cities, factories, mines, and manufacturing centers of central and southwestern Japan. As Japan mobilized for war and its eventual devastation, many more young men would be drawn from the farm as the nation sank into the darkest years of its modern history (Lockwood, 1954). The government, fearing rural unrest pushed by poverty and hunger, increasingly exerted its regulatory influence over farm policy. Following the invasion of China in 1937, the government set up the National Emergency Administration designed to carry out public works, improve village life, establish more landed cultivators, and discourage land division into smaller and smaller plots (Yogo, 1981). With the goal of creating landed farmers, priority land buying rights were first extended to families who had lost a member at war. However, as the war escalated, nearly every farming family experienced losses and the priority ranking lost all meaning.

The change in rural labor patterns had begun long before the war, however. Industry in the pre-World War II period served to absorb natural increases in the farm population, and while the number of primary workers decreased only gradually from the late Meiji to early Showa, the number of workers in non-primary industries rose sharply and steadily (figure 3.3). Farm families with a member working off the
farm could use their new income to purchase agricultural machinery and consumer goods, and domestic labor-intensive industries such as the textile industry expanded to meet demand. The transfer of capital from rural to urban areas also flowed through taxation, investment in industry, and export sales. Increases in both domestic and export-orientated production spurred urban wages, and lured more rural workers to the cities in search of higher-paying jobs.

Aomori, though home to few industries, still felt the economic shocks of the late Taisho and early Showa periods. Many workers who had gone away to factories lost their jobs; stories of poor farmers selling their daughters, or leaving the farm for seasonal fisheries in the north increased. Crops, including Aomori's apple industry, suffered as well. From the late nineteen-teens until the mid-1930s, the area put into apple production hovered relatively steady with periodic decreases.
(figure 3.4). As the economy emerged from the economic slump of the Great Depression years, production and area under cultivation picked up rapidly, only to plummet during the Pacific War years.

![Graph showing cultivated area (ha) from 1894 to 1948.](image)

Figure 3.4 Area of apple cultivation in Aomori Prefecture, 1894-1949 (from Hatae and Saitô, 1976, Appendix, page 1)

The more Japan became embroiled in military buildup, the more the government exerted its influence all aspects of life and economy. Fears of famine led both the national and prefectural-level governments to regulate crops and food distribution. The Food Increase Policy (*Shokuryô Zōsan Seisaku*) pushed farmers to grow more grains, pulses, and potatoes, and Aomori Prefecture’s local variation on the law pushed for more rice production (Koiwa, 1987: 181-182). To the dismay of apple growers, their crop was deemed “not important and not necessary” (*fukyô fuyo*) (Tôô Nippôsha, 1974: 56). Fertilizer, pesticide, and insecticide for apple production were difficult to obtain outside the growing black market. Farmers who wished to expand their crops had to ask for permission, and it was declared illegal to take the time to bag apples before the paddies had been transplanted.
Some farmers disregarded the rules. In 1943, the prefectural government forced renegade orchardists to fell some 990 “illegally” planted hectares of one- to two-year old saplings to make way for rice, soybeans, and potatoes (Koiwa, et al., 1987: 181-2). A number of fruit growers fought to maintain their investments. Farmers in the town of Namioka protested that apples were indeed “kōnō” (literally, “emperor agriculture,” or, the most important of crops). However, when a group of thirty farmers near Hirosaki City disobeyed government orders to plant rice before bagging their apples, officials threatened them with arrest (Tōō Nippōsha, 1974: 56; Koiwa, et al., 1987: 181-2).

The war years changed apple production in another way as well. Anti-foreign sentiment exploded and things that carried foreign names were renamed both for patriotism and to avoid the ire of the government and nationalistic consumers. Several popular varieties of apples that had been called by English names were hastily renamed. “Delicious” became “Yōgyoku” (Sun’s Halo), Golden Delicious, “Ōkan” (Yellow Crown) and Starking, “Taiyō” (Sun)(Koiwa, et al., 1987: 180). After the war, the unfamiliar “Japanese” names of many products fell from use as the original well-known names became politically acceptable again.

3.8 Why Tsugaru?

It may be appropriate to now stop and consider why apple growing became so concentrated in Aomori, and Tsugaru in particular, as opposed to other regions. Climatically, apples can be grown throughout much of Japan and indeed are grown in parts of Iwate, Yamagata, Fukushima, Hokkaido and Nagano (Hasegawa, 1960,
1958). The Meiji government had also distributed apple saplings to all climate-appropriate regions.

A number of events and conditions, however, conspired to concentrate apple growing in Tsugaru. For one, Tsugaru’s ex-samurai leaders such as Kikuchi Tataee dedicated funding, land, and time to apples and meticulously researched Western production methods. Due to the energetic efforts of Tsugaru’s apple “founders,” the crop became well established in the region early on. When devastating diseases and insect infestations hit in later decades, the Tsugaru region’s farmers suffered, but considering the time, capital, effort, and hopes invested in apple growing, many persevered with the crop.

Tsugaru as a region also had fewer crop choices. Whereas Nagano prefecture’s farmers could grow a wide variety of fruit trees, vegetables, and the profitable mulberry, Tsugaru lies beyond the cold limit line for many crops. Apples were both a high-value cash crop and a means of protection in years of poor rice harvests. Generally, and perhaps ironically, in years that the rice crop failed due to cold weather, apple trees thrived on the chill. Seldom did both crops experience heavy failures in the same year, as shown in Table 3.4.

The region’s late harvest and the moisture and sugar content of its apples also allow Tsugaru’s apples to remain in storage much later into the spring season than Nagano’s. Though the later harvest misses peak prices at the start of each apple season, because the apples stored well Aomori’s marketers could, if necessary, hold stored apples until scarcity drove up prices again in the early spring.
Table 3.4 Index of harvest conditions in Aomori Prefecture for rice and apples based on five year averages (from Hirosakidaigaku Gakuju zemina-ru, 1987: 42).  

<table>
<thead>
<tr>
<th>Year</th>
<th>Rice</th>
<th>Apples</th>
<th>Year</th>
<th>Rice</th>
<th>Apples</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>86</td>
<td>73</td>
<td>1919</td>
<td>96</td>
<td>60</td>
</tr>
<tr>
<td>1892</td>
<td>115</td>
<td>65</td>
<td>1920</td>
<td>109</td>
<td>83</td>
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<tr>
<td>1893</td>
<td>75</td>
<td>116</td>
<td>1921</td>
<td>96</td>
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<td>115</td>
<td>105</td>
<td>1922</td>
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<td>188</td>
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<td>1895</td>
<td>109</td>
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<tr>
<td>1898</td>
<td>98</td>
<td>129</td>
<td>1926</td>
<td>89</td>
<td>123</td>
</tr>
<tr>
<td>1899</td>
<td>99</td>
<td>100</td>
<td>1927</td>
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The social structure and economy of Tsugaru, particularly the availability of cheap labor from tenant farmers and poor rice growers influenced apple growing as well. Apples require massive amounts of labor, one of the factors that has limited the creation of large-scale orchards. As farm families in Tsugaru had fewer options for outside income, working on neighboring apple orchards helped both the workers and the apple growers.
3.9 Tsugaru and the regions of Aomori

Since the introduction of apples, the Tsugaru region has dominated Aomori prefecture's apple growing. While today the whole prefecture celebrates the crop, the heart of apple growing is and has long been centered on the south-central Tsugaru plain. How did Tsugaru become dominant within the newly-formed Aomori prefecture? Long-running regional differences surely contributed. Though the Meiji Restoration melded together historically distinct regions into single prefectures, regional differences and independence still prevailed. The following section broadly describes Aomori's regions with the goal of both describing Tsugaru and how Tsugaru stood apart in culture, economy and agriculture.

Geographical and historical factors contributed to Tsugaru's predominance in apple growing within Aomori prefecture. Cultural and physical divisions within Aomori Prefecture separated the prefecture's regions long before it came into being as a political unit. As such, even when integrated into Aomori prefecture, Tsugaru could still stand as a relatively isolated unit that did not necessarily interact with its neighbors. Even today, Tsugaru residents will speak of the southeastern side of the prefecture, the Nambu region, as if it were a different land (see map, Figure 3.5). The Nambu domain was historically centered in the castle town of Morioka, and extended northward across present-day Iwate and southern Aomori and eastward to the mountains that separate if from Tsugaru. Cultural gaps, and feudal rivalries broadened with the two regions' long separation and manifested in regional dialects so strong that each side claims it can barely understand the other's speech, as well as distinctive regional folk songs, arts and festivals.
Figure 3.5 Tsugaru and Nambu fiefdoms (adapted from Groemer, 1991)
Physical geography might be credited with initiating the Nambu and Tsugaru split. The high volcanic peaks of the Hakkoda mountains cut through the center of Aomori prefecture. Covered in heavy snow for over half the year, the highest peaks formed formidable barriers to communication and interaction between the two regions. The Hakkoda range also divides the prefecture's climate so that while heavy snow smothers Tsugaru for several months, the Nambu region generally enjoys cold but sunny and dry winters (Hiroshi, 1966).

However, in the spring and summer, the Nambu region suffers under strong, cold winds called the “*yamase*.” High pressure anticyclones originating in the Sea of Okhotsk, these winds blow inland over the low hills of Honshu’s eastern shorelines. Rice seedlings wither from the cold summer blasts, and before the Meiji period, the Nambu region’s farmers survived on millet, barley, and other grains, as well as on horse raising for which the region won national fame. Plans to increase rice production in the Meiji brought rice to the region, but even with the development of more cold-resistant varieties, rice crops failed frequently. The region still predominantly grows rice, however a variety of dairy, beef, and vegetables, and fruit tree production have become increasingly prominent and profitable (Soga, et al., 1997).

Moving northward from Nambu, the ax-shaped Shimokita peninsula relies more on fishing than agriculture. With little flat land available for crops, the Shimokita peninsula remains one of the most sparsely populated regions of Aomori. From the early Meiji period onward, fishing villages along the northern coasts of Aomori often had closer ties to the north and the fishing port of Hakodate than they
did with other portions of Aomori. At the same time, even if topography permitted, as in the northern and western portions of the Tsugaru plain, the harshness of winter storms and winds in the regions closer to the Japan Sea made fruit cultivation less tractable.

Thus, while belonging to the same prefecture, the various regions of Aomori did not follow the same development paths. Apple growing became most concentrated in the southern and central portions of the Tsugaru plain, where it first began and where it remains strong today. Apples transformed the Tsugaru region’s economy in less than a century and provided Tsugaru’s farmers with a measure of economic security and a new sense of regional pride. Apples meant that Tsugaru could be known for something other than grinding poverty and cultural awkwardness. In the postwar years, the introduction of innovations such as new varieties of rice able to withstand northern winters, and improvements in apple production would turn Tsugaru from dirt-poor frontier to a national food basket. However, at the same time, changes in the national economy and increased internationalization would drastically change the country’s agricultural economy.
The war left Japan in defeated shambles. To escape the rain of firebombs, some ten million urban residents had fled to the countryside, straining relationships with already struggling rural friends, relatives, and even strangers. With rice harvests down and imports squeezed, people in both rural and urban areas edged toward famine, many with the resignation that the militarist leaders would continue to fight as long as there were Japanese. The shocking news of Japan’s surrender came over the radio waves at ten a.m., August 15, 1945. As whole villages gathered around their radios, the first emperor ever to speak directly to his people asked that they “endure what is difficult to endure, suffer what is difficult to suffer” (Bailey, 1996; Terasaki, 1957). Several months later, the emperor would again stun the nation with the renunciation of his own divinity.

The “civilization and enlightenment” begun in Meiji had at once propelled Japan into the modern world and down a path to militarism and destruction. However, in the postwar era Japan would, to borrow an already overused analogy, rise like the phoenix from its ashes. For Japanese industry, the post-war era led into a period of fantastic growth, and the defeated nation’s emergence as the world’s second largest economy. The economy rose with the prosperity of first labor-intensive light manufacturing, followed by heavy and chemical, and then high-tech industries. Agricultural productivity followed suit, and regional famine became a thing of the past (Mori, 1991). However, industry would soon come to far out-produce agriculture. 1951 and 1952 marked the rebirth of heavy industry, but also
the beginning of the first absolute decline in the number of persons employed in agriculture (Jussaume, 1990: 24). For agricultural communities, the post-war era has brought many new opportunities and conveniences, but also circumstances that gnaw at the very heart of rural life.

4.1 Land Reform

The end of the war meant a massive repatriation of troops and colonists from abroad, and heightened pressures on food, the land and the economy. While some could settle back in their home villages, others returned to find that no space existed for them either on the land or in their families’ homes. Resettlement communities, many in the more sparsely-populated north, placed returnees in unfamiliar lands and charged them once again with colonizing new territories (Torsello, 1998). At the same time, many returnees also moved to the cities, forgoing their rural agricultural roots and opting instead to provide cheap labor for the refurbishment of factories and industry.

New government policies also altered the nature of society and the economy. On the 30th of August, 1945 General Douglas MacArthur arrived in Japan to assume his position as Supreme Commander for the Allied Powers (SCAP). Under SCAP, Japan underwent what has been called one of the greatest social experiments of all time. A new government and a new constitution filled with progressive ideas of women’s and worker’s rights, suffrage, democracy, and pacifism was created by the Americans in the name of the Japanese people and in the wording of the idealistic reformers.
One of the most highly-praised features of the new reforms was the reversal of landlordism and agricultural tenancy in Japan. Recent authors have contested the idea that land reform only emerged under the democratic auspices of the SCAP reformers (Yogo, 1981; Moore, 1990; Bailey, 1996). Indeed, the landlord’s power had essentially evaporated under reforms of the early 1940s. The Farmland Adjustment Law (1938) had pushed for more landed cultivators, and the Rent Control Order (1939) and Farmland Price Control Order (1941) had all but taken away landlord’s power social and economic powers (Hayami, 1975: 67).

However, even though land reform, like women’s rights, may have wound its own inevitable course into Japanese law, the efforts of the Occupation leaders spurred it on at a rapid rate. General MacArthur, under the guidance of the main drafters of agricultural reform, Wolf Ladejinsky and Robert Fearey, professed Jeffersonian agrarianist ideals based on the presumed human right of private property ownership, independence, and liberty.

The hope that “those who till the soil shall have a more equal opportunity to enjoy the fruits of their labor” (Moore, 1990: 86) was driven by practical political concerns, as well. Rural poverty, discontent, and overcrowding had been linked closely to the rise of militarism and imperialistic expansion. In the post-war period of redefined international relations, American reformers feared that that old and new political nemeses, fascism and communism, might arise if the countryside were left unattended. Based largely on Wolf Ladejinsky’s pre-war research on tenancy, the land reform directive addressed five major concerns listed by Moore (1990) as:
1. Intense overcrowding of land

2. Widespread tenancy under conditions highly unfavorable to tenants

3. A heavy burden of farm indebtedness combined with high rates of interest on farm loans.

4. Government fiscal policies which discriminate against agriculture in favor of industry and trade.

5. Authoritative government control over farmers and farm organizations without regard for farmer interests.

The first land reform bill came into effect just six months into the Occupation period. Similar to the landed-farmers program that had existed before the war, the program made any land owned by an absentee landlord and land exceeding five hectares owned by a resident landlord subject to release and sale to the cultivator. If the cultivator and landlord could not come to terms on the conditions of sale, a local representative of the Agricultural Land Commission would mediate (Yogo, 1981: 205). Like the earlier program, however, the first effort at land reform did not have as widespread an effect as had been hoped.

One year later, the Occupation began the Second Agricultural Land Reform. Stronger than the first land reform law, the new reforms allowed for no absentee land ownership and put limits on the amount of land owned and rented by resident landowners. The upper limit of land ownership varied by prefecture with resident landlords in Hokkaido allowed the greatest holdings: twelve hectares in total of which four could be rented out. Aomori was allowed the second highest rates of 4.5 hectares of which 1.5 could be leased out, a deference to the region's historically sparser population and larger holdings. Countrywide, the average allowable land hovered around two hectares with allowable tenanted land at slightly less than one
hectare (Moore, 1990: 90). With the reforms, the percentage of farmland owned by self-cultivators rose from 54% before the 1945 reforms to 87%. Concurrently, the percentage of farmland owned by absentee landlords dropped to zero, from a 1945 rate of 15%, and tenant farmland owned by resident landlords dropped from 31% to 13% in the same period (Yogo, 1981: 206).

The land reform created more balanced income and asset distribution among the nation’s farmers and quelled potential rural discontent. It also solidified small-scale landholding patterns. The fragmented nature of orchards, paddy and fields, and the problems of scale efficiency that involved, plague Japanese agriculture to this day (Moore, 1990; Hayami, 1975). As the economy moved beyond peasant agriculture, the small-scale of farm holdings increased the necessity of part-time farming. In fact, in many regions, land holdings grew even smaller with implementation of the postwar legislation, as landlords divvied land between tenants and former tenants parceled their allotment out to family members.

4.2 Agricultural cooperatives

The other lasting legacy of the Occupation’s agricultural reforms was the reorganization of agricultural cooperatives associations. During the war, the National Agricultural Association (Zenkoku Nōjikai) and agricultural cooperatives had formed the Nōgyōkai (Agricultural Society), a semi-government organization tied to village wartime mobilization (Harun, 1994; Hayami, 1975). The Occupation government dissolved the Nōgyōkai and transferred its marketing and credit functions to the newly reorganized agricultural cooperatives. The Agricultural Cooperative Law of 1947 led to a three-tiered system of cooperatives. Local
associations (nōkyō) formed to serve villages, towns and cities, and came under the guidance of prefectural and national federations. At the national level, the National Federation of Agricultural Cooperatives (Zen-nō), the Central Bank of Agriculture and Forestry (Nōrinchukin), the National Federation of Mutual Insurance (Zenkyoren) and the Central Union of Agricultural Cooperatives (Zenchu), create an umbrella of organizations that affect virtually all farmers in the nation. Though the nōkyō remain private institutions, their powerful political influence in rural communities and their national-level institutions' government ties makes the nōkyō a potent “quasi-governmental” institution (Moore, 1990).

Nōkyō’s overarching clout arose from its virtual monopoly over the national food, rice, and the government subsidies and perks that are so closely tied to rice. Cooperatives played a vital role in rectifying the early postwar problem of food distribution. The dissemination of agricultural technology, fertilizer, and seeds also came under the scope of nōkyō, making it a vital economic, social, and political organization in rural regions. Critically, too, the Occupation governmental granted nōkyō the right to conduct banking activities. As Moore explains the repercussions:

... this in itself might have seemed innocuous, but combined with Nōkyō’s domination over the flow of rice and government subsidies for rice, this act presented an opportunity unequaled since the Edo [Tokugawa] Period. In the Edo Period, the Osaka rice dealers, later to become large trading companies, were the exclusive dealers in trading rice for money for the feudal lords. After the Agricultural cooperatives Act, Nōkyō was able to turn its financial influence into political influence particularly in regard to policies favoring increases in the rice price. Increases in the rice price not only meant that farmers earned a higher income, it also meant that more money was flowing through the Nōkyō pipeline. (Moore, 1990: 141).
Within the *Nōkyō* hierarchy, two kinds of associations formed. Multi-purpose cooperatives play the main role in the agricultural cooperative network, serving the needs of a wider variety of farmers and engaging in supply, marketing, saving and credit, mutual insurance and joint-use of facilities. Single-purpose cooperatives serve specialized farmers such as dairy, sericulture, livestock and certain fruits and vegetables. Almost all members of a single-purpose cooperative are concurrent members in local multi-purpose cooperatives (Harun, 1994).

Utilization of the agricultural cooperative for marketing has and still does vary by crop, however the *nōkyō* still holds it virtual monopoly over rice.

The 1947 Agricultural Cooperative Act charged *nōkyō* with managing the collection, distribution and sale of routing approximately ninety-six percent of the country’s rice. In the pre-war period, only about twenty-five percent of registered rice flowed through the agricultural associations. Regulating the flow, price, and handling of rice served as a way of assuring a steady distribution while promoting stable pricing, an idea with precedents in the pre-war era. Under the 1942 Food Control Act, government-controlled rice (*seifumai*) was also bought and sold by the government as a means of subsidizing domestic producers in the face of cheaper imported rice from the colonies. Government buying and price setting continues and still provides a main subsidy and protection for Japanese rice producers. Today, other types of rice marketing are independently-routed rice (*hishuryūtsūmai*) and free-market rice (*jiyūmai*). Until recent years, unregistered free-market rice has been considered an illegal, black-market commodity.
Cooperatives also played a role in stemming the remnants of the wartime black market. During the war years, the black market had become more powerful and more profitable than legal channels, particularly by selling scarce fertilizers and chemicals. Apples were included in the contraband market of hard-to-get items, and while official marketing channels were paying around eighty-one yen per crate, black market rates could reach an exorbitant one-thousand yen per crate (Koiwa, 1987).

4.3 Promotion

Immediately after the war, Aomori, like the rest of Japan, set about rebuilding its cities, factories, and fields. Bombings at the very end of the war had destroyed most of Aomori City, home to a military base and port, though Hirosaki City remained largely unscathed. Part of the rebuilding effort focused on boosting agricultural production and reviving efficient distribution channels and promotion. An “apple boom” again hit the nation in these postwar years. The government of Aomori Prefecture promoted apples aggressively, reminding the nation that Aomori was the prefecture of apples and apple growers.

During the war, the prefecture had officially disregarded the importance of apples in favor of rice. After the war, however, Aomori’s government jumped in to promote its best-known cash crop. In 1946 the “Aomori Fruit Promotion Committee” (Aomori Seika Shinkō Kyokai) came together as a half-public/half-private organization in charge of disseminating information about apples, and researching and promoting the crop. The governor of the prefecture served as chair of the committee and nearly forty apple growers, distributors, processors and
researchers lent their expertise. Farmers were encouraged to reclaim fields for new orchards and to convert orchards of old trees to orchards of young saplings.

Organizations such as the Aomori Prefecture agricultural cooperative and the Aomori Prefecture Apple Association promoted and encouraged fruit growing, techniques and processing. The former Aomori Fruit Experimentation Center changed its name to the Aomori Apple Experimentation Center and changed its focus to studying apple disease prevention, and growing and pruning techniques. The center held competitions for farmers to show off their apples, as well as an apple festival (ringo matsuri) to celebrate both the region's fruit and to commemorate the day the Meiji Emperor had visited the prefecture in 1908 and had eaten Aomori apples (Hayashi, 1984: 214-5).

Promotion took other forms as well. Special train cars commissioned by the prefectural government's apple section toured the country carrying "Miss Ringo" (Miss Apples), beauty queens who smiled, waved, bowed, handed out apples, and served as representatives of both apples and Aomori. "Talents," the stars and starlets of radio, television, and film, gave public endorsements of apples' taste and nutrients. Celebrities of some renown stepped up to promote the crop as well. In 1957 Japan's own Miss Universe, Baba Sachie, posed for and Aomori Apple promotion poster, smiling before a basket of glistening fruit and radiant flowers. Sumo wrestler Wakanohana, one of the most famous wrestlers of the day (and the uncle of today's famous Wakanohana) promoted apples and his home prefecture of Aomori (Tōdō Nippōsha, ed. 1974: 75).
Glossy posters with photographs of Western families merrily peeling apples around the dinner table hailed the healthful, wholesome qualities of the fruit, while commanding Tokyo department store shoppers to “eat more apples!” (moitto ringo o tabeyou)( Tôô Nippôsha, 1974: 62). Aomori apple booths set up in big city department store supermarkets; city buses and giant helium balloons carried signs celebrating the arrival of special apple promotions. School cafeterias were enticed to serve apples in school lunch programs; housewives were invited to taste-test apples and participate in apple-cuisine cooking classes.

On city streets across the nation Aomori’s “Apple daughters” (ringo musume) dressed in smart red suits and apple-red lipstick handed out apples as gifts. In 1957, the “Aomori apple daughters” paraded down Tokyo’s famous Ginza as part of the Tokyo Fruit and Vegetable Festival (Tokyo Seika Matsuri). Dancing a Tsugaru folk dance and dressed in traditional outfits of Tsugaru peasants--indigo dyed baggy pants, headscarves, aprons, and carrying baskets of apples--the women connected well-known images of Aomori and its apple growers. Unlike the Miss Apple and the Apple Daughters in other city tours, the presentation of Tsugaru in the 1957 Tokyo festival and others like it celebrated traditional images, images that in the past had usually been more embarrassing than celebratory for Tsugaru residents. A Tsugaru tourist wearing the baggy pants and headscarf would have stood out in trendy, Westernized Tokyo. However, increasingly, one way of promoting Tsugaru’s crops was also to promote the region’s traditional, rural, gentle, folksy nature, and as such tug at the nostalgic heartstrings of city consumers.
Folk and popular songs with apple themes, however, provided possibly one of the greatest promotional boons for the fruit and Aomori. Loaded with romantic, nostalgic sentiment, the 1946 popular music hit, “The Apple Song” (*Ringo no Uta*) sung by the now-legendary Misora Hibari became the first big musical hit of the postwar era (Tansman, 1996; Hatae and Saitô, 1976). *Ringo no Uta*, in the words of one author, was “a tonic allowing Japanese to endure defeat, destruction, and famine, and to look to the future with hope” (Tasman, 1996). The same was all the more true for Aomori’s apple growers, and indeed it has been said that the postwar apple boom “rode on the success of *Ringo no Uta* (Toô Nippôsha, 1974: 59). The lighter, more Western melody of the *Ringo no Uta* provided the nation with a happy respite from wartime marches of nationalism and military endurance. Hibari sang of emotions and life, and the apple that symbolically sees all that is passing and the happier days to come:

Putting my lips to the red apple  
I quietly look at the blue sky.  
The apple says nothing, but  
I know the apple feels.

Shall we sing the apple song?  
If the two of us sing together, it’ll be even more fun,  
If we all sing together, we’ll be even more happy!  
Shall I tell you of the apple’s feelings?  
The apple is so cute, how cute the apple is!

Later, in 1953, Hibari touched the hearts of movie-goers as well as the hearts and pocketbooks of Aomori apple growers, when she sang another great apple-related hit, the “Apple Melody” (*Ringo Oiwake*) from the popular film *The Maiden of the Apple Farm* (*Ringo Koen no Shôjo*). The song became one of the most popular of the entire Showa period, and the movie created a host of romantic images.
of Tsugaru and Tsugaru apple orchards. *Ringo Oiwake* broke records in sales and transformed Hibara "into a provincial [Tsugaru] maiden" (Tansman, 1996). The mention of the poignant Tsugaru moonlit night, the fleeting apple blossoms, the majestic Mt. Iwaki, and the weeping Tsugaru maiden tugged at the nostalgia of listeners. In the song, Hibara sang:

The petals of the apple blossoms
scattered by the wind
on a moonlit night, on a moonlit night,
gently, yes...
The Tsugaru maiden cried,
she wept at the painful parting.
The petals of the apple blossoms
scattered by the wind, ah...

The white, cotton clouds drift lightly, like fleece,
past the summit of Mt. Iwaki.
The peach blossoms are blooming,
The cherry blossoms are blooming.
Since then, our most enjoyable season has been
when the early-blooming little apple blossoms come out.
But when the unfeeling rain pours,
scattering the white flower petals about,
I, I recall my mother's death in Tokyo then,
I, I...

The Tsugaru maiden cried,
she wept at the painful parting.
The petals of the apple blossoms
scattered by the wind, ah...

That Hibari, the legend, could become the maiden of the apple orchard, a pining, Tsugaru maiden, could only help the image of the region. Indeed, it was the very nostalgia for an idealized place of ephemeral blossoms, landmark mountains, and distance from Tokyo, that Tsugaru and Aomori would come to bank on in contemporary tourist campaigns, a topic discussed further in later sections.
4.4 Changing times, changing technologies

Reversals of popular culture represented by tear-tinged songs were, of course, not the only stimulant for Aomori apple farmers in the postwar era. Yields increased with the help of improved varieties, techniques, fertilizers, pesticides, and mechanized equipment such as speed sprayers and pollinators. Concurrently, or perhaps as a result of these innovations, the area under apple production increased. In particular, government reclamation programs helped farmers develop fields and orchards on the foothills of Mt. Iwaki. Former government- and communally-owned lands were plotted for development with initial plans favoring meadows for dairy and field crops. However, at the request of farmers, more land was allotted for apple orchards, and by the 1970s, apple orchards fringed the eastern and southeastern slopes of the volcano, and foothill towns such as Iwaki and Soma became leading apple producers (Toshinobu, 1979). Apple production also expanded in hilly areas in and around the south-central Tsugaru Plain.

Production indexes for both apples and rice jumped dramatically, while, at the same time, in communities in eastern Aomori prefecture, vegetable and flower production began to grow. Increased government subsidies for crop experimentation and research led to numerous innovations, improvements through an expanded network of agricultural experiment stations and colleges. Continuing efforts at land reclamation and field agglomeration also increased both the area and efficiency of rice cultivation in Tōhoku. In Aomori, paddy area increased by over 9,000 hectares in the decade between 1957 and 1967, and government subsidies

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allowed reclamation in the Kitakami River basin in northern Iwate, a public works project that included systems of dams and irrigation canals.

Though mechanization began decades before, the process made great leaps after the war. The government initiated the “Act to Promote Agricultural Mechanization” (Nōgyō Kikaika Sokushin Hō) in 1950, and successive agricultural censuses proudly tracked jumps in the number of tractors, tillers, threshers, harvesters, sprayers, seed spreaders, and rice planters (Moore, 1990:289). Chemical fertilizers and pesticides, seed sterilizers, and herbicides became agricultural necessities, while vinyl hothouses led to faster germination and earlier plantings. Norbeck, writing at the start of the 1960s, described the agricultural techniques of Tōhoku as seemingly more advanced than even those of “progressive” agricultural communities in southwestern Japan (Norbeck, 1961: 301). “No one ordinarily stints on chemical fertilizers or any other item recommended by the agronomists,” Norbeck noted, “because to do so has been found ultimately to result in loss” (ibid.). The high use of chemical fertilizers propelled productivity to new heights, and placed Japanese rice farmers second in the world in terms of per unit productivity by 1967 (Sum, 1972).

As agronomists, cooperatives, and the government pushed the new labor-saving and yield-enhancing technologies, farmers who could afford them eagerly complied. Mechanized rice planters planted the paddy in less time and eliminated much of the back-breaking bending of hand transplanting. New chemical-responsive and cold-resistant varieties also produced better yields. Tōhoku’s rice yields
doubled within two decades, and the former famine belt/ Snow Country moved
toward becoming Japan’s rice bowl (Norbeck, 1961).

The concentration of rice in Tōhoku had to do with both geography and
economics. While greenhouses and cold storage units were becoming more
common, the Tōhoku’s cold winters still precluded the growing of some cash crops,
and shipping distances limited the profitability and feasibility of certain rapidly-
perishable vegetables. Concurrently, a boom of market gardening and warm-
weather fruit production in southwestern Japan contributed to the relative
concentration and specialization of rice in the Northeast (Motoki, 1972).

However, monoculture rice production was definitely rewarding to Tōhoku
farmers. The government’s rice purchasing program and the high rice price
guarantees made the crop highly profitable. As one researcher observed in the early
1970s, “With rice now enjoying the economic privilege denied to other corps, rice
farmers in Tōhoku, and for that matter in all Japan, really have no desire to replace
it by other crops. In fact it is difficult to find any other crops that would fit into this
one-cropping requirement stipulated by nature, and earn as much” (Sum, 1972:
244).

Sum’s observations point to the policy-driven conditions that formed
Japanese rice farming practices in the early postwar decades. In a country
recovering from famine and deprivation, the cultivation of the national food was
given great social priority and heavy economic incentive. Farmers could be proud
of their produce as well as the income it brought, income from both the crop and its
government subsidies. The basis for postwar agricultural policy, the Agricultural
Basic Law of 1961 (Nōgyō Kihon Hō), sought to keep agricultural productivity high by reducing income disparities between farmers and persons engaged in other industries. The Agricultural Basic Law would later pose lawmakers with a perplexing problem as more and more farmers became part-time farmers and began to earn more money from off-farm sources yet still qualified for many agricultural subsidies. However, the strong farm vote, supported by election districts that allowed sparsely-populated districts areas the same number of legislators as densely-populated districts, made rural subsidies an issue that few politicians dared contest.

Price supports for key crops such as rice were seen as ways of stabilizing farmers' incomes as well as consumer prices. The Agricultural Basic Law joined a long series of laws aimed at enlarging farm scale, rationalizing and consolidating land holdings and raising productivity. The Basic Law also recognized dietary changes and encouraged the selective expansion of certain agricultural sectors. As the economy picked up, consumers had more disposable income and could buy more meat, eggs, milk, and dairy products as well as more fresh and processed fruits and vegetables (Kakiuchi and Kobayashi, 1975). By 1960, consumption of fruits was twice what it had been nine years earlier. Meat and egg consumption had risen similarly, and milk consumption, relatively rare in the pre-war years, jumped over four fold as parents began to see milk as necessary for healthy children (Trewartha, 1965: 185). Government goals hoped for even more expansion, while still maintaining rice self-sufficiency.
Another significant aspect of the Agricultural Basic Law was its recognition of the changing nature of farm labor and industrial labor in the post-war economy. In keeping with the goal of streamlining production and the land, the law encouraged farmers and their sons and daughters to get training and seek employment in other industries. However, while more and more farmers did indeed enter non-farm industries, the goal of creating larger-scale, more efficient farms was difficult to realize. So too, priority production of rice led to costly surpluses beyond the country’s ability to store it, and a reversal of the rice encouragement policy by the 1970s.

Shifts in rice policy and shifts in the economy brought about changes in the agricultural landscape and dramatic changes in the working lives of farmers. The following sections follow major issues in agriculture in the post-war years. The rise of part-time farming and the farmer-factory worker or seasonal laborer, the fluctuations of agricultural policy (in particular rice policy), and the corresponding changes in agrarian regions throughout Japan merged in the years following World War II and continue to shape agricultural communities today.

4.5 Part-time farming and socioeconomic changes

Working life in rural, agricultural regions changed dramatically in the postwar years. Economic opportunities in industries pulled farmers off the farm, while concurrently, labor-saving machinery pushed them from the fields. Other factors such as surplus labor, a lack of farmland for younger children to inherit, higher off-farm incomes, low farm prices, agricultural inefficiency, changing social
and economic goals, and the draw of urban lifestyles also contributed to greater or lesser degrees.

The Korean War and the Cold War politics that erupted along was one of the factors that helped propel Japan's industry. Having restored and remodeled Japan, the United States had moved on to fight other wars, making Japan its ally and a major base in East Asia. Between 1951 and 1960, United States' procurements and expenditures injected some 5.5 billion dollars into Japan's economy. In 1952 alone some 800 million dollars worth of US procurements fueled the Japanese economy, representing thirty-eight percent of Japan's total foreign earnings for that year (Bailey, 1996: 67). Annual growth rates between 1955 and 1960 topped twelve percent, and by the 1960s, Japan had become known as an "economic miracle" manifest in high worker productivity, harmonious labor relations, high employment and high savings rates (ibid. 68; Meyer, 1993:237). In the following decade, Japan's GDP took over the position of third largest in the world. Spearheaded by shipbuilding, chemicals, steel, and automobile manufacture, industrial production leapt fourteen-fold between 1951 and the early 1970s.

Japan's new reliance on manufacturing and the concentration of this activity within the heavily industrialized core region (the Tokaido megalopolis) perpetuated and in many ways acerbated socio-economic differences between the centers and peripheries. Aomori, for instance, once supplied much of the nation's charcoal, and iron sand. However, imports of new fuels, materials, and more advanced manufacturing processes replaced these goods in the post-war era (Koiwa, 1987; Murata, 1980: 249). As Murita described the situation: "...northeastern Japan was
from the first backward in development and, in the midst of the advance of technological innovation, managed to lose whatever industrial advantages it had possessed to begin with. Even during the rapid economic growth period of the 1960s, it did not show any large industrial development.” (1980).

While northern Japan may not have had the industrial opportunities of the Pacific belt, farmers still found promising off-farm employment opportunities. Plants in regional urban centers such as Sendai, Akita City, Aomori City, and Hachinohe drew in workers, as did factories in other prefectures, and service and construction jobs closer to home. Part-time farming rose dramatically in correlation with growth in the manufacturing and service sectors, becoming the most prevalent form of farming.

![Graph showing changes in numbers of part- and full-time farmers, 1950-1985](image)

Figure 4.1 Changes in numbers of part- and full-time farmers, 1950-1985 (from Muramatsu and Takeda, 1990: 218).

Japanese agricultural economists and social scientists generally refer to two broad categories of part-time farming. Class I part time farming households (sometimes referred to as primarily agricultural households) are those that derive
more than fifty percent of their income from farming. Class II farming households derive more than fifty percent of their total household income from non-agricultural sources (Jussaume, 1991). Figure 4.4 above, shows the increase in both classes of part-time farming with Class II farming outpacing Class I and full-time farmers since the mid-1970s. Aomori, with fewer off-farm opportunities and fewer high-paying ones at that, retained a larger proportion of Class I households than the nation as a whole, however Class II farmers still prevail.

Increased costs of living and farming have often been cited as factors that prompted part-time farming. Even with subsidized fertilizers or equipment, farmers had to pay cash for supplies early in the agricultural season in order to prepare the fields and purchase seeds. Investing in mechanized equipment placed farmers in long-term debt especially as equipment became more advanced and more expensive. (Oshiro, 1985). Buying equipment or going to work tended to place farm households in a cycle of purchasing. Labor-saving machines freed time for off-farm work, work that paid for the equipment and other goods. However, as farmers worked more hours off the farm, they had less time during critical planting and harvesting seasons. While full-time and class I farmers might have more flexible schedules and thus be able to borrow equipment from the agricultural cooperative, “weekend” farmers often could not borrow equipment when they needed it, since demand for limited numbers of machines soared over the weekends during peak seasons.

Not only farm equipment required money. In Aomori, just as in Tokyo, people had begun to consume more and, at the same time, wished to buy more
things. Washing machines, televisions, cars, refrigerators, gas and electric stoves, rice cookers and small appliances, and a host of other new goods became increasingly common. Census statisticians tracked prefecture-by-prefecture ownership of such items as pianos, organs, golf sets, tractors, cars, and electric ranges, and in most cases, found that Aomori’s residents came in only slightly behind the nation as a whole in ownership of most of the newest goods and luxuries (Muramatsu and Takeda, 1990). Japan had not only reinvented itself as a new technology society beginning in the 1950s; at the same time, it had also embarked on a consumer revolution (Habe, 1989: 16). Just as power tillers made it easier and faster to till the soil and gave farmers more time for non-farm employment, washing machines and automatic rice cookers freed time for farm women. As factories moved into rural areas, more women became factory workers. While women are often hired for lower wages in temporary positions, this shift to greater amounts of off-farm employment meant that farm women had fewer and fewer hours to spend on the farm.

Part-time farming had a number of social effects in addition to its economic ones. Numerous ethnographers have noted how communal activities and traditions decreased in the postwar years (Norbeck, 1961; Jussaume, 1991, Suenari, 1972; Kelly, 1990). Off-farm work drew farm family members further from the daily activities of the village, creating lines of difference between full-time farmers and part-time farmers. Traditions such as agricultural festivals were forgotten or blended into more general community festivals. Young people grew increasingly removed from farm work and the rhythm of farming which had once joined the
generations. In Japan, as in other industrial nations, fewer farm family members were needed to stay on the farm and many left the country for factories, cities and college.

4.6 Leaving the country

Over time, increased education levels also tended to draw youth away from the rural areas, away from the farm. Though the expanded network of agricultural colleges helped some young people study to become better farmers, many more rural youth studied subjects that would take them to cities or office buildings. "Salarymen" and "Office Ladies" became more common than farmers, and just as fewer sons wished to take over the family farm, fewer daughters wished to marry farmers.

The exodus to the city and the factory led to urban overcrowding and rural depopulation. As remote and mountainous areas communities lost population, social scientists created a new catchphrase: the depopulation problem (kaso mondai). In Tsugaru as in other remote regions, depopulation was especially felt along the northern peripheries and in mountainous villages where farming and economies had historically been marginal. Hirosaki and larger towns such as Goshogowara and Aomori City held their populations relatively steady and even gained numbers as people from nearby villages moved in for work. However, along the cold coastlines of the Japan Sea, towns such as Fukaura and Ajigasawa lost over twenty-one percent of their populations in the two decades between 1960 and 1980 (Habe, 1989).
Not only fishing villages felt the loss. Soma village in the heart of the south-central plain’s apple belt lost over twenty-nine percent of its population over the same two decades, while Nishimeya, a small, mountain-enclosed village on the historical economic fringe lost over forty-seven percent of its population. Across the Tsugaru region, villages experienced decreases ranging from five percent to the high twenties (Habe, 1989: 98).

The depopulation problem affected virtually every village institution and all aspects of society. Fewer residents led to the decline and eventual withdrawal of financial institutions, schools, hospitals, stores, and agricultural cooperatives. In the typical downward spiral, the loss of such institutions further hastened the population exodus, which in turn led to more institutional closings. Depopulation reduced the available agricultural labor pool, thinned cooperative networks, and left fallow plots on the agricultural landscape.

4.7 Staying on the land

However, to speak only of the “depopulation problem” and part-time farmer alienation from community traditions, suggests purely negative aspects of postwar changes. Not all changes were so dramatic or problematic, and the most widespread change, part-time farming, also had a number of positive effects.

Part-time farming, while arguably creating “dysfunction” within village social coherence, can also be said to have preserved villages (Jussaume, 1991). Without part-time, off-farm employment, many farmers would have been forced to leave their communities completely. Off-farm employment often provided the money needed to maintain the farm sometimes regardless of whether the farm made
a profit of not. As factories moved out into the countryside, more farmers and their family members had the opportunity to live on the farm, yet yearn money elsewhere. While virtually all agree that rural workers, especially women, receive unfairly low wages, it is also true that those wages can sometimes provide what many families need to sustain their households and farms.

Work in off-farm employment led to changes not only in community relations, but also in family life. With middle-aged and younger members working full- or part-time jobs off the farm, more of the daily farming responsibilities fell to the older generation and/or women, a trend referred to as “san-chan” farming. “San-chan” farming, referring to the “three chans” affectionate references to the grandmother (obaa-chan), the grandfather (ojii-chan) and the mother (okaa-chan).

Jussaume (1990:26) noted that this can be a positive situation. Older family members feel useful and productive in their retirement years while maintaining the farmland and supporting stability in the farming community. In recent years, agricultural cooperatives have accepted the prevalence of san-chan farming and have worked to better coordinate older members of the farming community and women’s groups.

4.8 Dekasegi, the “fourth sector”

The part-time farm households discussed above receive, to various degrees, income from off-farm jobs. Off-farm jobs vary. They could be positions at a local factory or the agricultural cooperative, driving taxis, at delivery companies, in service industries, or in professions skilled and unskilled. In most discussions of part-time labor, we imagine the farmer or a family member based at or close to
home, commuting from farm to factory and back. However, in northern Tōhoku and in Aomori in particular, farmers have long engaged in another sort of “part-time” farming: *dekasegi*.

Literally meaning “work away from home,” *dekasegi* has a broad range of references, applying to anyone foreign or Japanese who leaves their home for work in another region with the intention of eventually returning home. “Dekasegi-sha” (a person who does *dekasegi*) can refer to a Brazilian of Japanese origin who has traveled to Japan for work, just as in the past, it could refer to young women who left their homes to work for several years in the silk reeling mills. The geography of *dekasegi* follows the history and development of the regions. Tōhoku *dekasegi* is distinctive from Kyushu *dekasegi*, for instance. In Aomori and other parts of northern Tōhoku, *dekasegi* workers first tended to follow the path of the northern fishing industry. However, in the postwar years, northern *dekasegi* workers streamed south, catching the edge of the high economic growth economy. The following section will discuss *dekasegi* in the Tōhoku and in Aomori in particular. Like more conventional part-time farming, *dekasegi* has been, and in some parts of Aomori still is, a vital part of the rural economy. Indeed, the practice has so affected Aomori’s economy that the prefecture has been called the “*dekasegi* kingdom” with *dekasegi* as its “fourth economic sector” (Sakumichi, 1997: 139).

As industry boomed in the core regions in the 1960s, urban expansion and public works projects drove the construction industry as did the construction of a massive network of new roads, rail lines, industrial sites, housing developments, recreation parks and the many necessities and decorations of a economically flush
society. The frenzy to build and spend heightened with Japan’s first big international event of the postwar era: the Osaka Olympics in 1964. Hosting the Olympics brought both pride to the “new,” reborn, international Japan, and massive amounts of public and private investment to secure and maintain that image.

The rush to build required equally vast amounts of labor, preferably cheap labor, much of which was drawn in from the rural regions. While many workers migrated, moving home and family to regions of high-paying jobs, others kept their family at home and migrated seasonally. From the 1960s and throughout the first high growth period of the 1970s, dekasegi grew to its highest levels.

The northern prefectures of Tōhoku, those with the fewest opportunities for part-time work closer to home, provided the most dekasegi workers to the core. From the mid-1960s until a peak in the early 1970s, Akita and Aomori vied for the position of number one in terms of dekasegi workers. In the early 1970s through the peak in the year of 1974, Aomori and Akita each sent over 75,000 workers a year out to dekasegi jobs. Dekasegi numbers for Aomori reached a high of 80,486 people in 1974 (Aomori-ken Shōkō Rōdōbu Dekasegi Taisaku Shitsu, 1992). For Akita, the actual numbers of dekasegi workers dropped by some 30,000 persons in the five years after 1974. The drop, however, correlated with depopulation within the prefecture, with working-age people leaving Akita permanently and thus reducing the number of potential dekasegi migrants. The number of Aomori dekasegi workers dropped as well. This, however, was a more gradual decrease.

Though dekasegi reached an absolute peak in the postwar high growth period, it has had a much longer history. In the northeast, seasonal labor had roots
in the great famines of the feudal periods. The desperate circumstances of the
Tenpō famine between 1832 and 1838 drove peasants to Hokkaido to work in the
burgeoning herring industry. Spurred by the demand for herring meal fertilizer and
based on the seemingly inexhaustable schools of north Pacific herring, the herring
industry expanded with the influx of Tōhoku workers. Contract and independent
fishers plied the western shores of Hokkaido and the industry eventually moved
northward along Hokkaido’s coasts, up the arc of the Kuriles as far north as the
southern tip of Kamchatka. As the fishing industry picked up and became more
labor and capital intensive, Hokkaido’s sparse local Japanese population and the
often-reluctant Ainu population could not keep fill the labor demands. Fishing
grounds had also shifted by the late 19th century. Herring numbers had decreased in
the Sea of Japan, forcing many fishermen from Tōhoku’s western coastal villages to
go farther north in pursuit of their catch and their employment (Koiwa, 1987: 84).
The need for workers and the need for work bonded a pattern of *dekasegi* labor
between the Hokkaido fisheries and northern Tōhoku (Howell, 1992).

Japanese fishing fleets plied the northern Pacific during the pre-war period,
and during the herring heyday, Japanese packing plants ran as far afoot as the
southern tip of Kamchatka, Southern Sakhalin (Karafuto), and up the coasts and
rivers of Northeast Asia. *Dekasegi* workers could work around the seasons of
fishing and agriculture, catching the Hokkaido herring season between March and
June, and then migrating farther north and west for catches of crab, trout, salmon
and herring later in to the summer and fall (Sakumichi, 1997: 154).
Though *dekasegi* workers from Tōhoku primarily worked in the fisheries, other *dekasegi* jobs in the north included mining in Hokkaido and forestry in Karafuto (Takahashi and Kitamura, 1997). *Dekasegi* workers also worked closer to home in the forests of Aomori and other parts of the Tōhoku. During the height of the silk spinning industry in the first decades of the 20th century, another sort of *dekasegi* also increased. Young women, primarily, would often spend several years in textile factories in the central Japan (Koiwa, 1987: 264). Just as much "*dekasegi*" as the migratory fishing, the *dekasegi* to textile factories tended to differ in that workers often stayed away from home for a period of several years, sending back money to their families when they could.

*Dekasegi* migrants to the fisheries would often return home at peak agricultural seasons. If timed correctly, migrants could help with the rice planting or harvest before leaving for seasonal jobs. In other cases, migrants left during the winter months when, in the single-crop regions of the Tōhoku, they had no direct agricultural responsibilities. Peaks of *dekasegi* followed the peaks of poverty in the region. During the poor harvest years of 1929 and 1935-6, thousands of Aomori men and women left their homes for seasonal labor jobs (Morita, 1991: 306)

*Dekasegi* migration from the northeast to regions farther north continued throughout the war years and to some extent after the war. Construction jobs in Sapporo, as well as mining, forestry, fishing and seasonal agricultural work continued to draw laborers. However, the Hokkaido fishing industry had changed dramatically by the 1950s. The seemingly-inexhaustible schools of herring had been exhausted by the end of the 1950s and, even if they had not been, new
chemical fertilizers successfully competed with fish meals by this time (Koiwa, 1987: 264; Howell, 1992).

Though Hokkaido-based dekasegi lost its main draw in the postwar years, other dekasegi destinations and jobs increasingly drew Tōhoku laborers. It has been said that Japan’s economy was supported by dual-sector interactions, that is, with cheap rural labor supporting the factories and with the rise of consumer spending and rising rural incomes supporting the farm (McDonald, 1996). Within this model dekasegi has played a large role. Seasonal migration between regions and between the farm and the factory, the orchard and the construction site, not only helped industry and development in central Japan, it also helped farmers maintain their farms. Concurrently, the rise of factory-made goods eliminated most of the traditional winter crafts work of farm families, freeing more time for seasonal work. Rapidly expanding on advances begun well before the war, factories in the postwar era manufactured miso, tofu, and noodles. Synthetic fabrics would replace traditional straw raincoats and snow boots (Takahashi and Kitamura, 1997). As part-time work in nearby factories enabled many farmers to buy new equipment, farm supplies, new houses and consumer goods, so too did dekasegi, though with some differing economic and social effects.

In some cases, dekasegi essentially allowed farmers to farm full time during certain periods and work off-farm jobs in other periods. An Aomori rice farmer could plant the fields in early spring, leave for work in the summer and return in the fall for O-bon, the ancestral festival of late summer and the fall harvest. After the harvest dekasegi workers could leave again, working until the spring planting
season or at least the New Years holidays. Apple growing complicated the *dekasegi* schedule somewhat. Apples, as described more thoroughly in section 4.1 demand greater work throughout the season than rice does. Although some members of apple-growing households leave for *dekasegi* during the apple-growing season, most limit their absence to the winter months, returning in the early spring for the planting/apple blossoming season. In some cases, friends or the local cooperative pool labor to help prune the trees and check for snow damage during their neighbors' winter absences. In other cases, older male family members will care for the trees while their sons and sons-in-law are away.

However while many farmers consider themselves farmers who do *dekasegi* as a supplement, others, especially in the *dekasegi* boom years, considered themselves primarily *dekasegi* workers. Though somewhat of an oxymoron, “full-time” *dekasegi* workers do exist (Koiwa, 1987:265). Small-scale holders, in particular, might get the majority of their income from *dekasegi*. Others might only grow rice and vegetables for household use and local sales.

Though the practice of *dekasegi* has lessened in recent years, its social effects are still easily seen and recalled. During the winter months small Tsugaru communities are the domain of women, children and the elderly. In the northern Tsugaru plain and in the western fishing villages that freeze beneath sheets of drifting snow, winter streets and shops are often deserted (Figure 4.2). Percentage-wise, *dekasegi* is most common in the northern, western coastal, and mountain peripheries of Tsugaru, though some predominantly rice-growing towns also experience high levels. Kizukuri, a rice and melon-growing village on the western
side of Tsugaru, has long had high numbers of dekasegi workers as has nearby Kodomari and other towns on the periphery. In 1989, for instance, 41% of Kizukuri’s households sent a member out on dekasegi, while in nearby Inagaki village over 48% of households relied in part on seasonal labor (Carpenter, et al., 1996). In all, in 1990, one out of every twenty-one working persons in the prefecture was employed in some form of dekasegi.

Figure 4.2 Ajigasawa’s deserted winter streets when many residents leave for dekasegi.

Certainly, the social effects of such a practice are very real and often quite difficult. Japanese researchers who studied prewar dekasegi and early postwar dekasegi reported on wretched conditions: lonely spouses and children, strained marriages, and communities waiting out the winter for the decision-making heads of households to return. Worse, dekasegi labor often has often consisted of the least desirable jobs: dirty and dangerous labor in construction and in factories.

Newspapers from the Tōhoku grimly reported migrant deaths and injuries. Other
migrants never returned to their hometowns, having been swept aside in poverty, alcoholism, guilt, or the embarrassment of not having made it in the big city. 

Dekasegi, up until the early postwar decades, commonly carried a certain stigma rising from its association with poor farmers and tenants who couldn’t make enough to feed their families by other means (Sakumichi, 1997; Oshiro, 1975, 1976, 1984).

However, cheaper transportation, telephones, and better and safer working and living conditions at dekasegi workplaces improved the lot of workers in the high economic growth periods of the 1960s, 1970s and even into the present decades. In addition, even in the years when researchers bemoaned the “dekasegi problem” (dekasegi mondai), workers had a variety of experiences and reasons for going on dekasegi, not all of which were necessarily negative. As the economy picked up in the postwar period, it became evident that some dekasegi workers were making quite a lot of extra income and were using it for luxuries beyond basic needs.

Drive through the Tsugaru region today and you will see only a smattering of the old rambling folk houses (Figure 4.3). Increasingly, if savings accounts permit, farmers have rebuilt, favoring modern, airy homes with such amenities as heated floors, central heat, and spacious kitchens. Mini-satellite dishes capture television programs from around the world, while furnishings and decors mix both western and Japanese elements (Figure 4.4). In many cases the desire for amenities is not only personal but also associated the worry that one has to “keep up with the Satōs.” As dekasegi became pervasive in the 1960s, able-bodied men who did not take outside jobs were suspected of laziness from their neighbors, and troubled by
Figure 4.3 A traditional-style farmhouse in Hirosaki (1998)

Figure 4.4 A typical new farmhouse
thoughts that they were not doing enough to provide for their families (Oshiro, 1984).

In contrast to the desperate country peasant image of earlier dekasegi, images of dekasegi workers shifted to that of people who had lived in the big city and had the experiences of an urban sophisticate. Dekasegi meant an escape from the cold, dark Tsugaru winters, and not all jobs involved manual labor or the rigors of construction work. Dekasegi workers found jobs in ski resorts in the southern Japan Alps, and in some cases, husbands and wives go together to work during the winter months.

Trends in dekasegi relate directly to trends in farming, as primary industry workers make up the bulk of the dekasegi population. Until 1958 nearly seventy-percent of dekasegi migrants came from households with less than one hectare of land. After that time, however, the proportion of migrants coming from larger farms increased. Though farms under one hectare still predominated, by 1980 farmers from farms ranging from one to over two hectares accounted for nearly half of the dekasegi population. Of that percentage, workers from large farms, farms over two hectares, accounted for eighteen percent (Oshiro, 1984: 152). Since World War II, farm sizes have generally increased so part of the rise in large-farm dekasegi corresponds to this trend. However, larger-scale farmers are also more likely to depend primarily on income from their farm, and since that income has tended to drop, some form of outside work has been necessary.

The average age of dekasegi workers has also changed, marking time with the aging of the farm population in general. Younger farmers have increasingly
sought out work closer to home and more work has been available as factories spread out into the countryside (McDonald, 1996; Shinmura, 1993). By the mid-1990s, the average age of the *dekasegi* migrant had risen to the middle fifties whereas in 1963 some 42 percent of *dekasegi* workers were thirty-five to thirty-nine years old (Oshiro, 1984).
Chapter 5 Agriculture, Trade, and Regional Change

The postwar era brought changes not only in domestic industry and labor, but also in international relations and trade. Many of these changes had a direct impact on agriculture, as lower-priced or exotic agricultural products entered the country to compete with domestic goods. International pressure for Japan to open more of its markets has prompted Japan to lower some of its trade barriers whether they are tariffs or quarantine restrictions. This chapter discusses some of these trends, and the effects that they have had in Japan’s rural areas, in particular, the effects they have had on Aomori prefecture’s farmers. Related sections discuss production changes, alternate industries, and the culture of eating, buying, selling, and producing food.

5.1 Apples and the mountain and river market

Price drops and poor harvests have prompted many farmers to seek outside income through *dekasegi* or from jobs closer to home. In the late 1960s, and again in the present decade, apple growers have faced dramatic price drops, while rice growers have recently experienced gradual drops in the government’s rice price as subsidies and import restrictions crumble under the transparency demands of the Uruguay GATT treaty.

In the late 1960s, a main culprit in the apple price drop was trade, particularly bananas, newly allowed into the country along with other Southeast Asian tropical and subtropical fruits such as oranges, grapefruits, pineapples, and lemons. Before the new imports, apples and mandarin oranges (*mikan*) had reigned as Japan’s most popular fruits with *mikan* only surpassing apple sales in the early
However, bananas, though initially high-priced, quickly dropped in price and flooded the fruit markets.

The banana has several advantages over apples. Unlike seasonal fruits such as apples, mikan, Asian pears, and persimmons, tropical bananas are available throughout the year at generally consistent prices (Wakatsuki, 1976). Bananas are also easier to prepare—simply peel and eat. In the United States and Europe, most people would envision apples as a similarly easy-to-eat fruit, but in Japan the culture of eating apples developed quite differently. From the start a luxury fruit, apples became a combination dessert fruit and side dish. Apples are commonly peeled and sliced before eating, a practice that relates to their side-dish/dessert place in meals, but also reflects health concerns about agricultural chemicals. Size also effects apple preparation. Japanese apples are large. Fuji varieties range from 250 to 500 grams (0.55 – 1.1 lbs.), and massive Sekai-ichi (literally “world’s number one”) weigh in at an average of 500 grams, the size of a good-sized grapefruit.

Bananas and mikan, on the other hand, can be carried and eaten with ease; no knifes, plates, parers, special little dessert forks, or other accessories are needed. As one Japanese author and certain fan of bananas has noted, bananas became the “grand champion “ (from sumo wrestling, the term yokozuna) of fruits (Watatsuki, 1976). Additionally, the prices of bananas and mikan, and the fact that they have never quite entered the extremely high-priced “gift-fruit” market made them a “democratic” fruit accessible to all consumers (Watatsuki, 1976).

Apple growers, however, surely did not share such glowing sentiments about bananas or mikan. In 1963, the same year bananas were allowed into Japanese ports,
Aomori’s area under apple production reached its peak with 25,540.96 hectares, just under half of the nation’s total. Such high production resulted in a surplus of apples and a dramatic 41% price drop in Kôgyo, the most popular variety of the time. A boom in mandarin orange harvests five years later and continual declines in the price of bananas depressed apple prices even further, resulting in Kokkô price drops of 43% in 1963 (Ichikawa, 1976: 390).

A phrase from the time describes the desperation farmers faced: *yama gawa shijô*. *Yama gawa shijô*, literally meaning “mountain and river market” suggests that with apple prices so low, farmers could as well dump their crops in the hills or throw them into the rivers as they could sell them. Many farmers, in fact, did toss their carefully-tended apples into Tsugaru’s rivers and cart them to the hillsides to rot, as moving them to market cost more than throwing them away.

Recently, both the term and the price crisis have resurfaced. 1997 and 1998 saw some of the lowest apple prices since the late 1960s, drops of some 20-40 percent depending on the variety when compared to previous three-year averages (*Tôô Shimbun*, 3/10/98; *Tôô Shimbun*, 2/14/98). As with the previous price drops, many apple growers have been faced with the prospect of selling fruit at below-cost prices or not selling it at all. Like the past “mountain-river market” crisis, the current problem also stems from a number of factors, including the overproduction of apples, competition from other fruits both domestic and imported, and competition from other apple-growing regions such as Nagano Prefecture. The uncontrollable effects of weather contributed as well. Wet weather in the 1997 produced apples too juicy for long-term storage, and not so tasty to eat. At the same
time, consumer preferences have changed. Polls of office ladies, the soothsayers of Japanese consumer opinion polls, show that more favor strawberries and grapes. Favorite fruits aside, consumers as a whole now tend to eat less fresh produce and more pre-made, packaged food. At the same time, the stagnation of the Japanese economy cinched in pocket books, particularly hurting the specialty, high-priced gift fruit market.

Still, the low prices caught growers and the agricultural cooperatives by surprise. In towns across Tsugaru, apple growers who had received cash advances from the agricultural cooperative for the apples earlier in the season had to pay a portion of that amount back when apple prices fell far below what the cooperative had anticipated. In the summer of 1998 with months to go until the new crop matured, some farmers were still unable to repay the money. Prospects the coming season's sales and prices were also bleak, and while some farmers accepted the hardship as just another cycle, others feared that if the crisis extended a few more years, it would drive their family out of business.

In the 1960s and 1970s, apple growers rebounded from the "mountain river market" with changes in production technology and product selection. Japan pioneered a planned approach for shifting production into new varieties more suited for Japanese taste preferences (World Apple Review, 1997). At Japan's agricultural research stations, researchers set about developing new varieties, while government subsidies for replanting old orchards helped growers finance the changes.

Research into new varieties did not begin directly with the dire years of the yama gawa shijō. Official registration of new varieties, shifts in production, and the
wait for trees to mature to bearing age took many years. The drop in the apple market, however, prompted a concerted effort towards restructuring and refocused research into new varieties and production techniques. Pre-war experimentation resulted in a number of varieties that only reached fields after the war. Mutsu, for instance, emerged from a cross between Golden Delicious and Indo in 1930. After being selected for production and sent to grower's orchards, Mutsu began to arrive in shops in 1948. Tōkō, another offshoot of Golden Delicious also took some fourteen years to reach consumers.

Fuji, the apple that would become the most popular apple in Japan in recent decades, was developed in 1962 on experimental orchards at the small Tsugaru town, Fujisaki. A cross between Kokkō (Ralls Janet) and Delicious varieties, Fuji became immensely popular and production expanded rapidly. In recent years Fuji production has also moved abroad to orchards in the United States, New Zealand, China, and a host of other apple-growing regions. Other varieties developed in Japan specifically for Japanese apple-consumers’ tastes included Jonagold (Golden Delicious x Kōgyoku), Tsugaru (Golden Delicious x unknown), Hokuto (Fuji x Mutsu), Ōrin (Golden Delicious x Indo), Kinsei (Golden Delicious x Ralls Janet), Senshu (Tōkō x Fuji), and Sekaiichi (Delicious x Golden Delicious)(Hirosaki-shi Nōrinbu Ringoka, 1997; Bessho and Soejima, 1997).

The push to restructure the apple industry had dramatic effects on the makeup of Aomori's orchards. Prior to mid-1960s, Aomori’s growers grew 62% Ralls Janet (Kokkō), 25% Jonathan, 4% Starking Delicious. Twenty years later, Aomori’s growers grew 42% Starking Delicious and 31% Fuji. By the 1990s, the
same growers had moved to nearly 50% Fuji production, followed by 10% Starking Delicious, 8% Tsugaru, 6% Orin, 6% Jonagold and 5% Mutsu. The favorite apples of the pre-war and immediate-postwar era, Ralls Janet and Jonathon, dwindled to only 0.5% and 1% respectively of Aomori’s apple acreage (Sakamura, et. al, 1993; Aomori Apple Experimentation Center, 1996?).

Thus, by the 1970s Japan’s apple industry had largely shifted to Japanese-born varieties. The Ralls Janet, Jonathon, Smith Cider, Ben Davis, McIntosh, and American Summer Pearmain of earlier days had largely disappeared (Fukuda, 1994). In the postwar era, Japan’s apple market moved predominantly toward varieties that, for the most part, have only become available in other countries relatively recently if at all. Some well-known varieties in Japan such as Tsugaru, Senshu, Orin, Mutsu and Sekaiichi are still only rarely found outside of Japan (World Apple Review, 1997: 27).

5.2 Eating, buying, and giving apples

The preference for the new varieties connects to ways of eating, taste preferences, and gift-giving practices in Japan. Sour, tart apples praised by United States pie bakers, have had little place in the Japanese culinary sphere where baked, sweet desserts are only a recent, and still relatively rare, addition to the average housewife’s cooking repertoire. The Japanese apple, as mentioned above, is a dessert/side dish in itself, served peeled, sliced and raw (Figure 5.1). Consumers favor sweet, crisp apples for this purpose, and large apples tend to bring higher prices, since one apple can make several servings. So too, sweet apples have been preferred for making into jam and juice, the two main processed apple products.
In addition, however, a large part of apple buying is based on outward appearance. Big, flawless, highly-colored apples bring the highest price in Japan, a state of affairs that has to do in part with consumer demands, marketing ironies, and the use of fruits as gifts. Consumer affluence after the war allowed consumers to be particular and allowed agricultural cooperatives and other marketers to sell high-quality produce at high prices. Surely, consumers anywhere look for the best-looking fruits and vegetables, just as the good marketer knows that presentation influences selection. However, in Japan the trend toward perfect produce has escalated to such a high level that minor flaws in shape, color or size will relegate otherwise-good produce to bargain bins, local roadside stalls, juice processors, or other lower-price venues.
This obsession with perfection results in a self-perpetuating and self-frustrating state of affairs for both farmers and consumers. Consumers lament high prices, yet they want to buy produce that, in its near perfection, costs a great deal to grow (Figure 5.2). Marketers say that they would sell lower-priced, lower-quality goods, but consumers do not wish to buy it. Those same consumers retort that they have no choice, given the fruit market/supermarket buying practices. On the other end of the spectrum, farmers both benefit and suffer. Beautiful fruits and vegetables
command higher prices at the market, but also require higher costs to produce.

Time, labor, and equipment come at the same high premium a fine apple does.

The results of the produce pampering and admitted inefficiencies are often quite stunning, however. Japan's fruit stands and supermarket produce sections sport pearly-white turnips of uniform size, flawlessly smooth carrots, perfectly round tomatoes, and an array of other vegetal marvels devoid of dirt or blemishes. Perhaps most stunning, however, is the fruit. Peaches come nestled in individual foam wrappers, tucked into attractive wooden box sets, and sealed in plastic wrap. In early spring when the snow is still on the ground in Tsugaru, strawberries emerge from greenhouses and the fields of southern Japan. They may come to the consumer in unassuming cartons, but also in arrangements reminiscent of fine chocolates with each fruit artfully aligned in a specially designed box, perfectly spaced, beautifully colored, and nearly identical in sizes that range from small and average to massive, plum-sized wonders. Melons and grapes can exceed even the most flamboyant box of strawberries in price, presentation, and accomplishment. The stereotype (or the archetype) of Japanese fruit "excesses" remains the several-hundred-dollar muskmelon or the bunch of golf ball-sized grapes.

While the two hundred-dollar melon is not uncommon, more common are melons of lesser prices. However, even cheaper eight-dollar melon might seem a bit extravagant to the average American consumer. Why buy such expensive fruit? For the three-figure melon or the fifty-dollar apple, the answer is the gift market. Protocol, etiquette, obligation, and the simple habit, unavoidable duty, and/or love of gift giving drive a flourishing variety of gift markets in Japan. Travelers feel
obliged to bring co-workers, friends, and relatives gifts when they return from not only foreign vacations, but also short trips within Japan. Visiting an acquaintance’s home requires a small token, just as Valentines day now requires female office workers to buy their bosses “obligation chocolate” (“giri chocolate”) (Callans, 1998).

The size and, more important still, value of the gift depend on who is giving and who is receiving as well as the occasion for which the gift is being given. New Years as well as the August O-bon festival mark important gift-giving times when offerings are made not only to the ancestors, but also to business clients. For all occasions, it is important that the gift be appropriate both in taste and price. An overly-flamboyant gift can cause problems, as it might burden the receiver with a sense of unreasonable reciprocity or obligation. Too large or cumbersome a gift is also often unacceptable for it may encumber the receiver with the duty to display or store it, something that can be truly troublesome in space-limited Japanese homes. So too, how to know the boss’s wife’s taste in decorating or what golf paraphernalia an associate does not yet own?

Thus, what to get for one’s boss, a dinner hostess, or the important client? The edible/drinkable gift. A cantaloupe or bunch of grapes often provides the perfect gift-giving solution. Fruit is unassuming, tasteful, small, edible, and generally well-liked. Perhaps most importantly, however, fruit is something of known value, an important feature in a culture where price-appropriateness is a vital part of the gift-giving ritual. Of course, not just any fruit will suit the purpose. Wrappings, size, and other physical features speak of a gift fruit’s value even when
price tags are absent. A highest-priced melon has certain features, carefully
cultivated by their growers. Growers train these melons onto upright vines. As the
fruit matures, soft mesh nets cradle their weight to protect them from resting on the
earth and developing a flat, discolored spot on one side. Often, only one melon is
grown per vine, a technique that encourages larger melons and melons with
distinctive stems. The “perfect” gift melon will have a straight stem with two
supporting branches aligned at near ninety-degree angles to the main stem.
Needless to say, such a melon should also be free of any aesthetic flaws such as
splotchy color or texture.

It is often the case that wrapping is as important as the gift itself, and
wrapping can distinguish a gift fruit’s relative value. A pampered melon does not
sit in a bin for shoppers to paw through. Rather, it may be protected in a foam mesh
wrapper, or, if it is higher in value, it may rest in its own wooden box, surrounded
by tissue paper, or tucked in shiny foil. Elaborate, multiple wrappings and packing,
often reflecting set patterns of meaning and symbolism, can mark a gift’s intention
(Hendry, 1993). Presentation, as the saying goes, is everything.

Apples, like melons and grapes, come in very different trappings if they are
to be sold as gifts (Figure 5.3). Around the important gift-giving seasons at year’s
end and mid-summer, supermarkets, produce stands, and department stores feature
elaborate sets, ready to buy. Boxed fruit, fruit juices, jams, candies and
confectioneries, regional sake and beers, modern exotics such as olive oil, wine,
pasta sauce, and mundane goods such as laundry detergent and bath salts fill display
floors around the country. In Tsugaru’s stores, apples, of course, hold center stage.
Gift givers can buy whole boxes of Aomori apples to send off to other prefectures.
Smaller, fancier sets may contain several brilliantly colored apples wrapped in their
own foam wrappers, tissue or foil and sealed in boxes and cellophane (Figure 5.4).
At the highest end of the price spectrum, massive apples with sun tattooed
inscriptions proclaim New Years wishes. During the New Years season of 1997, for
instance, a Hirosaki department store featured such an apple sitting like royalty on a
small, satin and gold-fringed pillow atop a rotating pedestal, encased in a glass.

Nearby, slightly smaller but similarly inscribed neighbors nestled in wooden boxes. The most talked-about apple of the year, though, was the 20,000 yen (180$) beauty from Owani town, a town said to have perfect soil for growing the region's tastiest fruit.

Figure 5.4 Apple pies, cakes, sweets and juice packaged for gift giving.

Such apples do not just proverbially grow on trees. Vast amounts of time and labor are needed to produce the highest-grade apples. In general, many of the same techniques apply to everyday apples produced by Japanese farmers, a state of affairs that drives up prices for both the grower and the consumer.
5.3 Growing perfect fruit

The apple season begins at mid-winter when Tsugaru still lies covered in snow drifts. From January into March, growers prune trees, a technique that some spend decades perfecting and cherish as a regional art with technical forms traceable to the region's samurai founders (Figure 5.5). As the snow begins to melt in late April, growers cut the grass around their trees, mulch, and fertilize (Figure 5.6, 5.7). Buds emerge in May, and growers begin the laborious task of pollinating. Though many larger-scale growers now keep beehives and largely rely on the bees to do the pollinating work, others cannot trust their crop to insects or the wind. Pollination by hand has long been required, a process that can involve workers brushing individual blossom clusters with long, pollen-dusted wands.

Removing excess blossoms and small fruits, a technique designed to produce fewer but larger apples, requires additional hand labor. Though chemical thinning has increasingly taken the place of the older by-hand methods, chemical thinning also has its costs, as it still requires application time as well as the purchase of the chemical thinning sprays and the equipment to apply them.

As the buds grow into fruit, some varieties such as Fuji, Tsugaru, Mutsu, and Jonagold are placed in paper bags for special coloring, a process that farmers must sometimes repeat once or twice during the season. Removed from their bags in late summer, the sheltered apples color quickly and brilliantly in the sun, undergoing spectacular color transformations from shades of pale yellow to transparent pink and irradiant red (Figure 5.8). However, while the pale skin of the newly-freed apples colors rapidly in the sun, it is also susceptible to shade marks.
Growers intent on producing finely-colored apples must remove nearby leaves and twigs that might block the sun and produce blotchy or unevenly colored apples. Later, to ensure that not even the rotation of the earth will interfere with color, growers may twist individual apples on their stems so that all sides receive equal amounts of light. Shiny aluminized tarps laid beneath the trees bounce the sun’s rays onto even the apples’ undersides, ensuring a perfectly colored fruit (Figure 5.8). These practices produce not only stunning apples, but also marvelous effects on the local landscape. In the fall, the hillsides of Tsugaru glitter from hundreds of tarps shining through leaf-plucked trees dotted with surreally pink apples.

Throughout the year, most growers apply liberal sprayings of pesticides, herbicides, and fertilizers. Harvest requires the most time, running from late August for fast-maturing varieties such as Tsugaru and spanning into November for the slower, yet more popular, Fuji. Harvesting requires a sensitive and time-consuming touch (Figure 5.10). Apples are hand picked with great care taken to twist the apple so the stem remains attached. If the stem comes off, the apple, no matter what its size or color, cannot be sold for a good price and will instead go for juicing. Carried from the orchard in small hand baskets, the apples are then carefully sorted, boxed and sent to the agricultural cooperative, private distributors, or prepared for shipping by individual farmers.

By far, labor accounts for the largest cost of apple production. Meticulous leaf thinning, bagging, spraying, pruning, and most of all, harvesting, require hours of tedious hand labor (Figure 5.12). While small farmers can usually get by with the help of family members and sharing work with neighbors, larger-scale operations...
Figure 5.5 Apple orchards in mid-winter, the time of year farmers begin to prune.

Figure 5.6 Spraying pesticides and herbicides from speed sprayer
Figure 5.7 Apple trees coated with insecticide (Fall, 1997)

Figure 5.8 Apple tree with plucked leaves and bagged apples (late summer, 1997).
Figure 5.9 Reflection sheets and newly-unbagged Fuji (Fall, 1997)

Figure 5.10 Harvesting apples near Iwaki village (Fall, 1998)
Figure 5.11 A cartoon put out by Hirosaki City showing the steps in producing “delicious apples” (no date)
require much more hired, temporary help. According to a survey conducted in Soma village in the heart of Tsugaru's apple belt, medium- and large-scale orchards of three to five hectares might hire some 250 to 300 temporary workers during the year. Of these workers, most are hired in for time-critical thinning and harvesting seasons (Aomori Ringo 120 Shūnen Kinen Jigyōkai, 1995: 60-61).

![Figure 5.12 Approximate Labor per Hour for One Hectare of Fuji Apples, 1989 (Bessho and Soejima, 1997: 108).](image)

However, just as the farm population has decreased in number over the past few decades, so too has the available pool of temporary farm laborers. Of the workers examined in the above survey, 70% came from outside the village, 64% were female, and over half were over the age of fifty. Fliers from individual farms and local agricultural cooperatives try to attract workers, especially local high school and college students, housewives, and retired farmers. Average pay in recent years has hovered around 4,000 to 5,500 yen ($38-52) per day depending on the
worker's skills and, often to the economic detriment of female workers, gender (Aomori Ringo 120 Shûnen Kinen Jigyôkai, 1995). Daily or weekly pay, flexible work times, provided transportation, and even mid-morning and afternoon snacks are used to try to draw in workers. The work, however, is hard. Plucking off leaves in the rainy season or harvesting in blustery cold November are enough to drive many workers away to less-strenuous and higher-paying jobs.

As wages in other industries have risen and as the temporary farm labor pool has dwindled, apple growers have had to pay their hired help more. According to a Ministry of Agriculture, Forestry, and Fisheries survey, labor costs in 1993 accounted for slightly over 66 percent of the Aomori apple farmer's total costs, a percentage up from 51.2% in 1986. During the same period, actual labor costs by area doubled (Aomori Ringo 120 Shûnen Kinen Jigyôkai, 1995). Despite slightly rising yields per area, given the high costs of growing apples, and the low and often fluctuating market price, profits from apple growing have not been entirely reliable or in pace with rising costs, as illustrated in Figures 5.13 and 5.14 on the following pages.

The high labor costs are not a recent development. A farm journal from the last years of the Meiji Period records average labor costs for the years 1910-1912 as accounting for nearly 62% of production costs (Akita, 1990). Indeed, as one group of researchers has noted, Japanese apple farming has not changed much since the Meiji era in terms of scale and hand-labor requirements. In their words, small-scale production is the “fate” of Japan’s apple industry. More specifically, “If the scale is large, you cannot work it by hand. If you cannot work by hand, you cannot grow
Figure 5.13 Prices (yen per kilogram) for apples in the Aomori region and in city markets in other prefectures.
(Aomori Ringo 120 Shûnen Kinen Jigyôkai, 1995: 71; Aomori-ken Ringo Nôrinbu Ringoka, 1997)
Figure 5.14 Net income (1000yen) per 10 are of apple orchard in Aomori (Aomori Ringo120 Shûnen Kinen Jigyôkai, 1995: 71).
apples. That has not changed even now\(^3\) (Hirosakidaigaku gakuju zeminaaru. 1987:33).

The high amount of labor needed to maintain apple orchards has contributed to limiting the scale of orchards throughout the history of apple growing in Tsugaru, and most apple orchards remain one hectare or less. A recent study has shown that while profits increase rather steeply as orchard sizes increase from less than a hectare to around three hectares, in orchards over three hectares, costs keep profits from expanding along with increased production Aomori Ringo 120 Shûnen Kinen Jigyôkai, 1995: 74).

However, another contributing factor to the limited profitability of larger-scale orchards is the common dilemma of multiple small holdings. While a grower might have three hectares of orchard total, these holdings could very well be in four or five different places, in other villages or on hills, plains or riverbanks. Under these circumstances, farmers who rent equipment might have to rent it from different cooperatives or dealers. Workers must travel between farms, and the grower must keep track of orchards that have different conditions, terrain, and growing cycles. Equipment sheds must be maintained at various locations and farmers have to take more time simply to reach their fields.

5.4 Cutting costs

Farmers and local and prefectural agricultural cooperatives have tried to cut costs in various ways such as changing to organic or low-chemical production, natural pollination, replanting orchards in dwarf trees, and the reduction of time-consuming activities such as bagging and leaf thinning. Time- and labor-saving
measures have become more popular in recent years as profits have flagged. The prefecture has subsidized dwarf tree (waika) plantings in the hope that more farmers will switch to the lower-labor trees. Young waika can bear fruit sooner than regular sized apple trees. Moreover, the waika can be trained along poles and wires, their limbs reaching out sideways to form flat profiles and even rows that make it easy for speed sprayers and farm trucks to navigate. Harvesters do not have to scale ladders into a canopy of limbs and apples as with regular trees and more trees will fit into one orchard.

Figure 5.15 Newly-planted regular apple trees (left) and waika (right). The poles that the young waika are tied to will be used to train them into neat rows (Spring, 1998)

Organic and low-chemical produce has also grown in popularity both with growers and consumers. However, growing organic apples is not as simple as foregoing chemicals. Given the nature of landholdings, an organic farmer’s land will often abut the orchards of several pesticide-using neighbors, a situation that
makes the organic plot indirectly subject to exposure from chemicals and tempting to insects.

Heavy chemical use on most plots protects against a variety of diseases, fungi, and pests. More than sixty apple diseases including Blossom Blight (*Monillinia mali*), Scab (*Venturia inaequalis*), Canker (*Valsa certosperma*) and Violet Root Rot (*Helicobasidium mompa*) have been reported in Japan. Fire blight, the dread of apple-growers in other parts of the world has not been officially reported in Japan, though one controversial study did report its existence. Codlin moth, another bane of apple growers, has also not been reported in Japan, though Oriental Fruit moths (*grapholita molesta*), Summer Fruit Tortrix (*Adoxophyes orana fasciata*), two kinds of leaf miners, the European Red mite, and a Peach Fruit moth are all common pests.

To protect their crop, growers may spray over a dozen times a year, resulting in Japan’s fruit being among some of the most heavily chemically treated in the world. If consumers were to stand in orchards at spraying time, more might decide to buy the less-perfect but less-chemically-protected fruit. Farmers with only a handkerchief around their face at best maneuver fire-engine red speed sprayers jetting fans of chemicals into the tops of apple trees. Some workers complain of their noses burning after working in the chemically treated orchards all day, even long after the spraying has been done.

A growing number of farmers have also moved to un-bagged fruit. In 1986, for instance, nearly 90% of Tsugaru variety apples grown in Aomori were bagged. By 1997, however, that number had dropped to 40%, the result of high labor costs
and the diminishing labor pool. Fuji production underwent a similar transformation. During the same time period, bagging of Fuji dropped from 81% to 58%. As Fuji is still the most-produced apple in Aomori, however, bagging 58% of the crop still represents a lot of labor. Likewise, other varieties are still almost always bagged. In 1997, for instance, only 27% of Mutsu and 15% of Jonagold were grown without bags (Aomori-ken Ringoka, 1997: 66).

In supermarkets in recent years, the organic, low-chemical, or non-bagged apples tend to sport clear labels so that consumers realized why the fruit might not appear as pretty as others. Growers contend that non-bagged apples taste better than their sheltered counterparts, the sweeter product of longer exposure to the sunlight. Promotion of organic, and nonbagged or non-leaf thinned apples have attempted to inform consumers about the fruit's benefits whether for reasons of health, taste, or price.

5.5 Rice policy and regional change

While apples are the second most-produced crop in Aomori, rice, as in most parts of Japan, is the first. Regardless of what combinations of rice, fruit, vegetables, or livestock farmers might raise, they have likely been affected by changes in government rice policy and in the production and promotion of the national food. Likewise, agricultural policy as a whole is intrinsically linked to rice to the extent that to discuss policy regarding other crops and in rural labor practices, it is necessary to keep trends in rice policy in mind.

In the years leading up to World War II and in the years immediately following the war, as discussed in previous sections, fears of food shortages led the
government to both promote rice production and regulate its distribution and pricing. However, the rice price supports of the first Agricultural Basic Law produced high yields, bumper crops, and staggering rice surpluses in the late 1960s and early 1970s (Ohnuki-Tierney, 1993: 16; Tenma, 1991). Committed to buying the farmer’s rice, the government had to purchase and store huge quantities of the grain.

In the early 1970s, to try to alleviate the surplus problem while still maintaining rice price supports and import restrictions, the government implemented the first of consecutive rice acreage reduction programs (gentan). Later programs led to rice acreage reductions and the promotion of non-rice agriculture. Though subsidies eased farmers into the agricultural land use changes, they marked a key change in agriculture and particularly rice agriculture in the rice-dependent Northeast. Rice, though still favored by government price supports and still the predominant crop, had lost some of its symbolic and economic prestige. Income from rice-reduction programs did not amount to as much as the sale of the crop itself. Moreover, leaving fields fallow, while easier labor-wise, did not sit well with rice farmers who had been proud to grow the national food. As one author described the situation:

Farmers were taken aback. The policy was a complete about-face from the push to boost rice output that had been the norm. Suddenly, they were told not to grow rice... The psychological impact of this change in policy was immense. No crop had been more valued than rice, and a farmer could perform no greater service for his country than to grow rice. For generations, farmers had considered it a virtue to reclaim land for paddies, a practice their forebears had begun centuries ago. Now, abruptly, they were told that it was more virtuous to abandon those same paddies (Niide, 1994: 18).

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The first attempt to reduce rice production strove for a 10,000 hectare reduction in the nation’s paddy and offered farmers 20,000 yen per are to divert paddy to other uses. The following year, the government upped the scale of paddy diversion, shifting 236,000 hectares of paddy with a payment to farmers of approximately 35,000 yen per are. The program exceeded expectations. Some 337,000 hectares were taken out of rice production, of which only twenty-two percent was changed into vegetable or other specialty-crop production with the majority of the land remaining fallow.

Reduction programs under different names but with the same basic goals have continued. From 1971-75 the Rice Production Control and Diversion Program (Inesaku Tenkan Taisaku) strengthened the reduction policy and further, tried to encourage farmers to begin replanting fields to other crops. Under previous policies, many farmers preferred to leave land fallow rather than replant it. Fallow land could conceivably be replanted in rice if need be, whereas draining paddies and switching to other crops changed the consistency of the paddy soil and required considerably more effort. With the new law, the government paid more to farmers who planted their former paddy in other crops (preferably perennial crops)(Moore, 1990). The 1978 Program to Reorganize the Utilization of Paddy Fields (Suiden Riyō Saihen Taisaku) also pushed for “tensaku” (“changing production”) and provided subsidies for growing certain crops on former rice lands.

However, despite decades of rice conversion and paddy reorganization initiatives, similar problems and programs remain to this day. Most recently, the New Staple Food Law enacted in 1995 and its related Law for Stabilization of
Supply-Demand and Price of Staple Food set the goal of reducing surplus production and gently inducing more market-guided pricing for rice (MAFF, Dec. 15, 1995; MAFF, Nov. 4, 1994). In 1997, the New Rice Policies again targeted more land for reduction, increasing the adjustment goals for fiscal 1998 to 963,000 hectares or more than 30% of the total paddy area in Japan. A reduction in the price of government-purchased rice, limits on the amount of rice which could be sold through government channels and encouragement of voluntarily marketed rice accompanied the reduction policy (MAFF, Feb. 6, 1998).

Though the production adjustments have always been technically "voluntary," government subsidies require community-based compliance with reduction targets. In the official wording, consensus on reductions should be formed through "coordinated action between the local government and the producer's organizations, based on active and responsible efforts on the part of producers and their organizations." Further, "distribution of targeted acreage for each prefecture, city, town, and village, and farmer should be decided on the joint responsibility of the local government and the producers' organizations after deliberation and coordination between the two, and notification of decisions should be presented to individual farmers by both the government and producers' organizations" (Tenma, 1991:164). Likewise, new quotas for rice reductions are based on past compliance. Thus, community pressure to share the burden of rice reductions and achieving reduction targets to receive subsidies compels farmers to comply. As growing rice still potentially brings more money than leaving land
fallow and waiting for subsides, in the name of fairness communities tend to divide up the reduction quotas proportionately equally among rice growing households.

However, in addition to the reduction measures, the decline in rice prices and the recent gradual lowering of the government’s rice price have eroded the once high economic and politically powerful position of rice growers and their cooperatives. Rice reduction policies have been met with some resistance in rural communities where some farmers, as one might expect, balk at the idea of the government getting involved with their production. Reduction politics clearly shows itself on the landscape. Across the plains, paddy with small corners or rows left inundated but unplanted create a patchwork where farmers try to produce more rice in smaller paddies. The policy has raised questions of scale efficiency and also questions of comparative advantage among regions, as rice reduction policies target all regions including those that grow the high-value rice more favored by consumers, as well as regions with larger-scale farms (Riethmuller, 1989).

Changes in rice marketing regulations have also allowed regions to increasingly profit from specialty rice. Farmers may now independently market organic rice, and proportionately less rice is sold as government marketed rice. Voluntary rice, rice marketed through registered distributors, constitutes a growing proportion of rice sold in Japan and through such markets regions can promote high-quality, unblended rice favored by consumers (Mishima, 1992).

5.6 Trade: fears and confidence

In the midst of rice cutback programs and apple price drops, farmers have also had to worry about increases in imported produce, a trend that has made the
production of high-priced specialty produce on one hand more timely, but on the
other hand, more vulnerable. Japan's farmers fear that they cannot compete in an
open market, a fear that is in many ways justified by the small-scale, capital- and
labor-intensive nature of Japanese agriculture. Though the average farm size has
risen in recent years, over half of the nation's farms remain between 0.5 and 1.5
hectares, with the majority of the remaining "large-scale" farms hovering under five
hectares (MAFF, 1995b).

In contrast, United States rice farmers think of large-scale in terms of
hundreds of acres, and increasingly, so do apple growers. Since the early 1990s,
dozens of 100-plus hectare orchards have formed in Washington State's Columbia
River Basin. "Efficiency is key," an extension agent tells the New York Times's
reporter. "It comes through good management and economies of scale." Corporate
owners, accountants, managers and a board of directors run the massive farms that
scare even their neighbors, "small-scale", family farmers running orchards of
around 16 hectares, orchards that would be considered very large by Aomori

Japan has a long history of agricultural protection. By the Russo-Japanese
War in 1904, Japan had imposed tariffs on imported rice. Later supports for
domestic producers and tariffs and quarantines on rice produced outside the Japan's
colonies shielded domestic rice farmers from the full brunt of international
competition (Anderson, 1983). Following the war, the Food Control Law and its
goals of reviving agriculture and calming rural unrest sharply curtailed international
trade in agricultural products (Meyerson, 1997).
Admission to GATT, (the General Agreements on Tariffs and Trade agreement) in 1955 compelled Japan to gradually open more of its agricultural markets. Over one hundred fishery and agricultural products were liberalized in 1960, and products such as soybeans, bananas, sugar, grapefruit, pork, eggs arrived on Japanese shores throughout the following decade (Itoh, 1994; Moore, 1990). By the 1980s, Japan had become the world’s top importer of agricultural products, and the United States by far stood as Japan’s main trading partner (Saeki, 1991).

However, the process of opening Japan’s agricultural markets has not been easy. Domestic producers have protested vigorously and the Liberal Democratic Party, the long bastion of the rural vote, traditionally sided with farmers concerns. Rice imports have created the most heated and bitter debates. Fears of dwindling food self-sufficiency, as well as fears of a loss of traditional landscapes and a symbolic national crop have fueled the debate both within and outside Japan (Yoshioka, 1992).

Opponents of rice imports have long argued that cheaper imported rice would drive small-scale Japanese farmers out of business, would reduce Japan’s already low food self-sufficiency rate, and would thus make the country almost entirely dependent on foreign producers. They also argue that as rice holds a vital and special place in the Japanese diet, protections should be allowed. The arguments do hold weight. In the course of becoming the world’s largest agricultural importer, Japan has also developed the world’s lowest food and caloric-self sufficiency ratios. As of the early 1990s, government reports estimated that
domestic producers supplied less than half of the nation’s calories, and only thirty-
percent of calories from grains.

Japan’s vulnerability to the fluctuations of world markets and whims of politics became particularly evident in the 1973 “Soybean Shock.” With fears of a soybean shortage in the United States, President Nixon briefly banned soybean exports. Japan, which at the time imported over eighty-percent of its soy beans from the United States, had to scramble to find other sources of a crop vital for such staples as tofu and miso paste (Hasegawa, 1987). Opponents of rice imports have asked what would happen to Japan if it became dependent on foreign rice and a similar embargo or shortage occurred.

Opponents have also argued on grounds of sentiment and landscape preservation grounds (Figure 5.15). Rice, paddy, and all the trappings undeniably hold a special place in Japan’s culture, heritage, and religion. Trade liberalization opponents have long argued that if rice farming could not compete with foreign rice, Japan’s traditional agricultural landscapes, centuries of agricultural knowledge and the farming lifestyle will be lost as well.

However, on the flip side, some consumer groups and the powerful conservative lobby of the Keidanren (Japanese Federation of Economic Organizations) have advocated more imports and market freedoms. Bitter arguments set Nōkyō and the farmers’ organizations against the Keidanren. Free-trade opponents focus on the high costs of farm subsidies and the costs of maintaining small-scale, part-time farmers. A growing percentage of urban consumers have also grown restive with regard to the high price of foods, the
imbalance of rural electoral power, and taxpayer support of sometimes wealthy part-time farmers.

Figure 5.15 Landscapes worth preserving? Scene of rice and apples (Hirosaki, 1997)

A new phase in the internationalization of Japanese agriculture developed in the late 1980s. Trade frictions between the United States and Japan, fanned by huge trade surpluses on the Japanese side, again brought agriculture trade to the symbolic forefront (Yoshioka, 1992). Agreements on beef and citrus imports were concluded by the end of the decade, but rice barriers remained intact as successive Prime Ministers pledged they would. 1993, however, saw the worst rice harvest in nearly fifty years. By November of that year, shipments of Thai rice had arrived to fill the gap in domestic supply, and government negotiators at the GATT talks finally wavered on rice imports. To the dismay of farmers, the government agreed to “Minimum Access.” Under Minimum Access, the amount of imported rice would
gradually rise from four to eight percent of domestic consumption over the following six years (Niide, 1994; MAFF, 1994b).

While rice growers were up in arms, apple growers were becoming increasingly worried about the future of their own crop. Although Japan’s apple market had been technically opened since 1971, phytosanitary restrictions had effectively prohibited apple imports except for limited and sporadic imports of Korean apples (Malone, 1994; Aomori-ken Ringoka, 1996). Pressure from the United States and New Zealand, however, resulted in quarantines being lifted for certain varieties of apples, and in 1994 limited imports of New Zealand-grown apples began to arrive at Japanese ports. Red and Golden Delicious varieties from the United States followed in January 1995 (WuDunn, 1995). Growers protested vigorously. News reports covered angry rallies led by Aomori apple growers who feared the lower prices of imports would drive them out of business and threatened devastation stemming from “foreign” diseases such as fire blight and Codlin moth.

In Tokyo markets, the new fruit did enjoy a brief period of curiosity buying. Sales have subsequently dropped sharply, however, and in 1997 only a few tons of New Zealand apples entered Japan. Foreign growers blame their lack of success on the continuation of strict phytosanitary measures. The World Apple Review (1997) summarized the rigorous, cumbersome, expensive, and often frustrating approval process:

... protocols demanded by Japanese agricultural officials and agreed to by petitioning countries seeking access have created a new form of trade barrier. Essentially, the orchard blocks from which apples will be supplied to the Japanese market must be designated early in the growing season before the orchardist knows the volume, size or quality of fruit that block will produce. The blocks much be 500...
meters from other apple or pear blocks. This rules out contiguous blocks. The blocks must be visited by Japanese inspectors during the growing season. Apples destined for Japan must be kept separate at harvest, in storage and when packed, and be subject to inspection at each stage. Producers and shoppers must bear the cost of these separations and inspections. At harvest time, producers often find that much of the fruit that has undergone the Japanese protocol is not appropriate in size, quality or finish for the Japanese market. In contrast, among the 95 percent or more of fruit that has not undergone the Japanese protocol are many lots with the characteristics that would make them appealing to Japanese customers (World Apple Review, 1997: 61).

In addition, the *World Apple Review* noted, a nineteen percent tariff on imported fresh apples on top of the already expensive protocol demands has made exporting apples to Japan more expensive than growers had originally hoped. Ill feelings intensified when Japanese apple suppliers strategically lowered prices to coincide with the arrival of the foreign competitors.

At the same time, Japan has long maintained a relatively high producer subsidy equivalent, giving its apple growers benefits over foreign producers even if their apples were to enter Japan. Though apple subsidies are relatively low compared to highly-subsidized grains, they amounted to so US$380 per ton in the period from 1987-89, far exceeding the OECD (Organisation for Economic Co-operations and Development) countries’ average of US$85 for the same period (OECD, 1991).

However, perhaps most frustrating to foreign growers and the largest source of contention since 1994 have been the quarantine tests required on individual varieties. Only Golden and Red Delicious, varieties not particularly favored by Japanese consumers, passed the long quarantine process after decades of failed inspections. Growers from Washington State as well as those from Australia and
New Zealand now grow more Fuji apples, the favorite of Japanese consumers, and
hope that Fuji will become a profitable apple for exports despite the high entry costs
of the market. The conflict was eventually taken before the World Trade
Organization where judges in the fall of 1998 agreed with United States’ claims that
the variety-by-variety testing requirements were restrictions in disguise. If the
decision withstands Japan’s planned appeals, the measure could have repercussions
not only for apples, but also for walnuts, cherries, nectarines, and a variety of other

As foreign apple exporters wait for the WTO to rule on appeal attempts,
imports of currently-approved varieties have all but ended. Quarantine measures,
cost, and un-enthusiastic Japanese consumers ended imports from the United States
and cut New Zealand imports to a mere 9 tons by 1997 (*Aomori-ken Nôrinbu Ringo
Ka*, 1998). Japanese apple growers have expressed a mix of relief, assuredness, and
worry. Some say that they knew the imported apples would fail, that the apples
would not stand up to the Japanese consumers’ particular tastes and aesthetic
preferences. U.S. growers claimed that their apples would not directly compete
with Japanese-grown fruit, as they were striving to develop a new niche market of
hand/snack fruit. Such a niche, it was claimed, would in no way harm the expensive
gift fruit market that already flourishes despite large price differences. However,
Japanese consumers did not readily accept the idea of eating unpeeled apples.
Consumers expressed fears of agricultural chemicals, fears heightened by unfamiliar
waxed apples and the discovery of a banned agricultural chemical on one batch of
United States grown fruit.
While Japanese growers may feel confident that the quality, size, and taste of their fruit will continue to appeal to their country's consumers, the newest ruling of the World Trade Organization has renewed fears that popular varieties such as Fuji may soon arrive from abroad. If Fuji were to be imported, many farmers fear that the imported apples' taste, quality, and price could compete with domestically grown Fuji. As with a number of other agricultural products, the largest future threat looms not necessarily from the United States, currently still Japan's largest agricultural trading partner, but from other parts of Asia. In the past decade and a half, China has risen from second in world apple production to first, a decisive first with China producing four times the apples of its nearest competitor, the United States (World Apple Review, 1997).

Conditions surrounding imported Chinese garlic suggest what could happen if Chinese apples reached exportable quality. Along with apples and nagaimo (Chinese yams), Aomori ranks first in Japan in garlic production. However, imported Chinese garlic has consistently undersold Aomori garlic by at least 200 yen per kilogram since 1990, and in 1996 Chinese garlic sold for some 800 yen per kilogram less than Aomori garlic. Over the same period, imports quadrupled (Aomori-ken Nôrinbu, 1997).

5.7 Combating imports with exports

In the face of rising competition from other fruits and other producers, Aomori prefecture has sought to expand its apple market and counter foreign trade moves with exports of its own. Southeast and East Asian neighbors have proved the most viable and profitable export locations. Aomori growers have sent their smaller
and less perfect fruit that would not sell as well at home, as well as high-quality fruit for the gift market, a niche market appreciated in other Asian countries. The prefecture has put considerable effort into promoting itself along with its fruit in an attempt to have foreign consumers think of “Aomori” apples rather than merely “Japanese” apples. Brigades of agricultural cooperative officials, the governor, key farmers and officials and a trio of “Miss Aomori Apple” winners have gone on whirlwind promotional tours of Thailand, Taiwan, Hong Kong, the Philippines, and Singapore. While the officials meet over deals, the Miss Apples hand out apple samples in supermarkets, make speeches and pose for pictures bedecked in traditional kimonos. Displays include maps of Japan with Aomori prefecture and its natural beauty and beautiful apples highlighted (Figure 5.16) (Aomori-ken Kajitsu Seisan Shukka Antei Kyōgikai, 1997).

Aomori has also tried to export apples to the United States and New Zealand, however, the fancy, oversized, highly-priced apples did not sell well except among the Japanese expatriate community. In New Zealand, poll results overwhelmingly indicated that New Zealanders found the apples too large (Aomori-ken Kajitsu Seisan Shukka Antei Kyōgikai, 1997: 19). Some of the same complaints, however, have come from young domestic consumers. A poll of several hundred Japanese women revealed that they “did not eat many apples” because forty percent thought they were too difficult to eat. Only twenty-three percent, however, thought that their price was too high, a not-so-surprising result given the high price of most fresh produce in Japan (Tōō Shimbun, March 30, 1998).
5.16 An Aomori apple advertisement in Thai as part of Aomori’s export campaign (Aomori-ken Kajitsu Seisan Shukka Antei Kyōgikai, 1997: 34).
5.8 *Tensaku* and specialty crops

Many Aomori farmers, however, grow both rice and apples or a combination of rice, apples, or vegetables. As such, strategies to reduce rice production and to diversify from rice to other high-value crops such as fruits, flowers, or vegetables, often affect many apple growers as well. At the same time, as some towns have had success with specialty crops such as garlic or melons, other towns and individuals have been encouraged to try. The following section briefly details the state of other agricultural products in Aomori and related trends in the apple industry.

The importation of rice along with the continuation of the rice diversion programs has driven the diversion programs. The most recent rice diversion plans allow farmers to leave paddy flooded but fallow, a sort of natural reserve system in case of a rice shortage or changes in the rice policies. On the other hand, the government has tried to encourage rice farmers to shift to other crops, particularly vegetables, fruit, and in some cases, dairy, poultry, or livestock. In Aomori, throughout the rice reduction years, some farmers have changed their paddies to orchards. Others have moved to vegetable or flower production, a strategy encouraged by agricultural cooperatives throughout the prefecture.

Over the past several decades, greenhouses filled with such crops as melons, tomatoes, stock and lilies have arisen on the Tsugaru plain, while former paddies have come to sprout Welsh onions, iris, edible chrysanthemum, grapes and an array of other vegetables, flowers and fruits (Figure 5.17). Not only the rice reduction policies, but the promise of higher returns have inspired the trend toward greater crop diversification. Greenhouse-grown vegetables, flowers, and even fruits for the
off-season have tended to garner high prices in the market, and many local agricultural cooperatives have encouraged crop diversification and high-value specialty crop production.

Figure 5.17 Vegetables being grown on former paddy (Hirosaki, 1998)

In Aomori, the most dramatic crop conversions have taken place in the Nambu region, on the eastern half of the prefecture bordering the Pacific coast. There, specialized vegetable production combined with aggressive marketing and promotion has benefited farmers in a number of towns. Due to cold summer yamase winds, rice production in the region was historically marginal at best, impossible at worst. More cold resistant strains of rice brought paddy cultivation to the region and efforts to increase and stabilize rice production in the immediate pre-
and post-war eras increased rice cultivation in the former root vegetable and mixed grain region.

However, once again, rice reduction and crop conversion policies working in tandem began to change the agricultural landscape. Vegetable and flower production gained in popularity as paddy acreage gradually declined. Poor harvests brought on by cold weather in 1980 also spurred the conversion from rice. At the same time, the construction of a new national highway made Nambu less remote, and its produce more readily marketable to Tokyo via cold storage trucks (Hirosaki University Faculty of Agriculture Nōgyō Seisan Ryūtsu Kōza, 1993).

The gradual conversion from rice to vegetables and flowers has not been uniform across the region, however. Individual towns have made names for themselves with one or two specialty products, while the farmers in other communities have moved to a wide variety of crops, effectively spreading their risk. Tiny Takko village, population 7,681, for instance, has come to produce over half of the garlic grown in Japan. Slightly to the east, in Nambu Town, the farmers embrace a more mixed production of grapes, apples, Asian pears, edible chrysanthemum, and nagaimo (a kind of taro sometimes translated as a "Chinese yam"). Noheji has become famous for its small white turnips (kabu), and Shimoda is known for nagaimo (Aomori-ken shichōson shinkokyōkai, 1997). The trend towards niche products and regional specialty products has been tried in communities throughout Japan. In Kyushu, Oita prefecture developed the “One Village, One Product” campaign (Isson Ippin Undo). Begun in the late 1970s, the one village, one product effort tried to produce “not a product, but the product using
each town and village’s own resources” (OECD, 1995: 51). A village with hotsprings, for instance, built naturally heated greenhouses for roses. Others concentrated on vegetables or mushrooms. Vegetable and flower production has also been promoted, being safer from imports that fruit and rice, since rapidly perishable vegetables and flowers cannot be as easily shipped, stored, and quarantined.

While Tsugaru farmers have not converted to other crops in such a wholesale fashion, the lure of higher-priced vegetables, flowers and specialty fruits has encouraged a number of communities to try. A lesson to be learned from alternative crop success stories is that name recognition, publicity, and a good reputation are crucial. Noheji turnips received high prices in Tokyo wholesale markets after the Noheiji agricultural cooperative rigorously enforced high standards for size and quality (Kanda, 1997). Noheji turnips go to the wholesale market only after careful inspection, scrubbing, and sorting, requirements that raise costs both for the farmer and the consumer, however also something that sets Noheji turnips apart from others. Too big, too small, not round, or slightly blemished turnips are not accepted by the local cooperative.

In the case of Noheji and other communities growing specialty products, the promotion of the product, popularization of its uses, and the image of the town itself can help with name recognition and sales. Noheji turnips often come in packages with recipes instructing housewives on how to make special kabu pickles or other side dishes. Likewise, the town’s name and the image of its northern, rural nature, and hardworking farmers are highlighted on the packaging materials.
A number of apple-growing communities have also sought to emphasize their specialty products and to incorporate them into wider community development projects. A starting point for numerous rural revitalization efforts has been the creation of community “images,” an idea expressed with the English loan-word “image” or, if an old image is thought to need a boost, in the phrase “image up.” The “image” of a community may incorporate a spectrum of the community’s unique features such as historical events, specialty agricultural products, scenic spots, or a host of other notables. To varying degrees of success, towns and villages have sought to simultaneously carve out a niche for both tourism and agricultural products markets, often one that sets them apart from their neighbors while still linking them with broader images of the Tsugaru Region and Aomori Prefecture.

In the apple-growing region of southcentral Tsugaru, towns vie with one another to set themselves and their apples apart. Assigning a local appellation for the town is an immediate way of telling visitors, if not the residents themselves, what the community claims to be, while at the same time advertising local products. Hirosaki city has assumed the nickname of “town of apples” (ringo no machi) and Kuroishi calls itself the “hometown of apple and kokeshiki dolls (ringo to kokeshikik no furusato).” Soma Village used to be a “village of apples and rice” (ringo to kome no mura) until the addition of a new recreation park led it to add “village of beautiful stars” (hoshi ga utsukushii Soma-mura) to its image catch phrases. Fujisaki, as the birthplace of the Fuji variety apples boasts the name “hometown of Fuji” (Fuji no furusato).
Names, of course, are only one part of the drive to produce specialty products. Some towns have also begun to process and market brand name products, thereby adding value to their produce and providing some additional employment for local residents. Itayanai, the “town of apples” (ringo no sato) built its own apple-themed recreation park and retail outlet named Ringo Works (Apple Works) (Figures 5.18 and 5.19). Complete with an apple museum, tea room, processing facilities, and orchards featuring dozens of varieties of apples, the center also makes its own apple-related crafts and foods. Local women bake apple fiber cookies and dye fabrics and yarns in dye made from apple tree bark tannins. Potters sell pots with apple-tinted glazes, and weavers make high-priced bags out of apple tree bark. In addition, the center rents out log cabins set amidst the apple orchards and sells its own brad of apple juice, jams, jellies and sherbet.

The center, according to one town resident, seeks a high-priced, upper-class image. Ringo Works brand apple juice goes to market in sophisticatedly slender bottles reminiscent of wine bottles and in fancy gift sets of jams and juice (Figure 5.20). The image has proved successful. Tour buses of visitors arrive on Ringo Work’s steps. Local farmers sell not only apples but also vegetables at the local farmers market, and the center features its own fall “apple lantern” festival, all a part of its expressed hope to create a “community of people and apples” (“hito to ringo no komyunite”) (Figure 5.21).

Individual farmers have also sought to adjust production methods, promote their family farm’s own images and market their crop in non-traditional ways. Some have moved to organic or low-chemical farming. Others have successfully
Figure 5.18 Festival goers and floats at the annual Itayanagi Apple Lantern Festival (Itayanagi, August, 1998).

Figure 5.19 Family fun in the apple orchards. A father takes his children for a go-cart ride at the Ringo Works recreation center (Summer, 1998).
Figure 5.20 Ringo Works jams and jellies in their distinctive packaging marketed lower-labor, non-bagged apples by highlighting their good taste and more natural appearance. For a number of farmers, success has depended on direct marketing to customers. A direct route to customers interested in organic apples or to a network of acquaintances in urban markets can provide possibly higher prices.

In the age of advanced communications, a number of farmers, as well as communities, have ventured out onto the internet to sell their goods. A quick search of the web can turn up not only information on the prefecture's agriculture, but also information on the special products of regions, towns, and private farms. Such a trend is not limited to Japan, as rural communities in central Sweden, Alaska and other relatively remote locations have hoped that “I.T.” (information technology) will be the panacea to bring down barriers of distance.
5.9 Making hometowns: tourists and specialty products

Many of so-called community "image up" campaigns have had wider goals than marketing local produce. One of the central problems facing rural communities is population drain. The community essentially becomes a retirement community, or, in the case of small towns within commuting distance of urban hubs, a bedroom community. Successive laws and government incentive policies have tried to lure people back to the rural regions, however regional disparities persist in terms of job opportunities and amenities.

With the idea that young people are more likely to stay in livelier communities with schools, libraries, recreation facilities, stores, and activities, public works projects and direct monetary grants have been pumped into the regions. In addition to infrastructure, local festivals, whether traditional, revived, recreated, or simply invented, have been seen as ways of pumping life and coherence into communities. If a notable local historical or natural landmark does not already exist in a town, one can be built. Towns across Japan host a myriad of special events, and it would seem that nearly every village, town and city has at least several special scenic spots, historical landmarks, notable products, or crafts goods. Things as disparate as castles and solar car racing, the longest wooden bridge and the oldest apple tree, the largest rice ball and Jesus' grave, whooping cranes and long-tailed roosters can be a village's claim to fame. The manufactured images adorn any number of tourist goods, for these events or attractions will be reproduced on a wide variety of tourist goods for sale at, on, or near tourist attractions.
Tourism has been promoted as the great new hope for rural communities across Japan. Government grants for resort development have resulted in an archipelago seemingly over-saturated in leisure opportunities. The Resort Law of the mid-1980s accelerated the trend and led to plans for resort construction covering some 30% of the nation’s total land mass (Knight, 1994). Golf course investment in the boom years of the bubble economy played as an economic indicator, and ski slopes became ubiquitous just about anywhere there was snow and slope (Newsweek, 1998). Hot springs, the former salve of the laboring class, turned trendy. By the late 1980s, the number of overnight stays at hot spring resorts hit 122 million, a number three times the figure thirty years ago (Knight, 1994; Osaki, 1988). National parks drew tourists interested in escaping urban grime for more pristine forests, and cultural heritage sites boomed with tourist buses in the peak holiday seasons.

With just about every city, town, village, and mountain competing for tourists’ attention and yen, communities are working overtime to have something that sets them apart and makes them attractive. In Aomori, a key element of tourism advertising has been the promotion of the wholesome rural, and the romantic, unspoiled nature and heritage of the northern countryside. Nostalgia that makes the overworked salaryman pine for the comforts of a remembered or imagined rural homestead (the furusato), plays a vital role in many a tourist campaign.

The term “furusato,” as a number of authors have noted (Robertson, 1988; Ivy, 1995; Kelly, 1990; Creighton, 1997), has deeper connotations than its literal translation of “hometown.” Furusato is in many ways the Japanese equivalent of
picket fences, mom, and apple pie, perhaps a combination of paddy, mom, and pickles. It is comfort, a home base where one can go to escape the stresses of everyday life and recover or rediscover one's roots. As summarized by former Prime Minister (1988-89) Takeshita Noboru who promoted the revival of furusato as a way of revitalizing the peripheral regions, "Furusato is a special word... [it] evokes the values of family ties and harmonious social relationships. The furusato is a home to the spirit as well as the body, the place where we instinctively know we belong" (Chee-Meow, 1989: 2; Inoue, 1991). Longings for real or imagined rural comforts are certainly not unique to Japan. The following quote describing French yearning for the rural could be just as aptly describing Japan or the United States, or, indeed, any number of countries.

Here we have a fantasy which urges us to think today that the countryside is the mother of all our traditions, to find in the country the origin of all that honours the national character in our tastes and habits... In this manner, peasant life has become the sanctuary of people's origins, their lost roots, and the ousrce of an improbably authenticity (Burguiere et al., quoted in Bessiere, 1998: 23).

The yearning for furusato has led to a “furusato boom” and for those who do not have any tie to a true rural hometown, it is possible to adopt, rent, buy, or create a substitute (Ivy, 1995). Neighborhoods of Tokyo have declared themselves furusato and have hosted their own furusato festivals as signs of community spirit. At the same time, rural towns from across Japan market "furusato" products and even long-distance community membership that includes periodic newsletters from one's new furusato accompanied by seasonal shipments of local products such as rice, pickles, or other specialty agricultural goods.
In peripheral regions such as Aomori and the Snow Country of the Japan Sea side, the rose-colored lenses of nostalgia have changed the image of rural life and have opened up opportunities for tourism development, just at a time when the future of agriculture looks increasingly grim. Whereas in the past rural places were most often regarded as backwards and culturally inept, at odds and out of step with the rapid societal and economic changes of the postwar high growth era, rural places increasingly have come to be seen as repositories of Japan's national heritage. Rice paddy and agricultural landscapes, thatched roof houses and old women in indigo kimono have become symbols of a Japan that has nearly been lost to the economic miracle. Some towns have found that they can find tourists who will pay to shovel snow off roofs, milk cows, or plant rice, previously odious jobs now sentimentalized in Tom Sawyer-esque fashion by those who do not depend on harsh repetitions of this work for their daily wages.

Like many places in rural Japan, Aomori has been caught up in its own hopes for a tourist boom. The current governor has announced that Aomori will be Japan's prefecture of "Culture and Tourism for the 21st Century." It is not unreasonable to wonder what activities and entertainments will support these bold claims. Whether tourism can buffer the effects of falling apple and rice prices, and salve the outflow of young people remains to be seen. However, with the waning of agriculture and continued difficulties in attracting other industries to the prefecture, it is also not difficult to see how tourism offers this hope.

The prefecture's resources actually do offer opportunities for several kinds of tourism. The region's ski resorts in the high Hakkoda mountains and the
internationally recognized rarity of its World Heritage Site Shirikami Mountains virgin beech forest provide a base for recreational and nature tourism. History and heritage, particularly the castle town area of Hirosaki, draw in tourists, as does pre-history. The recent discovery of one of the largest early Jomon (3500-2000 B.C.) sites in the country at Sannai Maruyama just outside of Aomori City has brought great pride and what has been described as “Jomon Fever” to the prefecture. In Japan, it is not unusual for archaeological remains to be linked with images of national identity. Sannai Maruyama and an assortment of other ancient sites, including the remains of a two-thousand-year old rice paddy discovered outside Hirosaki, have proved key in the presentation of Aomori as the nation’s northern cultural hearth (Takamatsu, 1996).

Beyond the forests and the potsherds, Aomori showcases its agriculture, particularly its two main crops. It would be difficult for any visitor to forget that Aomori is the apple-growing capital of Japan. Apple-shaped guardrails line prefectural highways as do billboards for apple products and welcome signs to apple-growing towns. Even towns that do not grow apples feature a wide array of apple products from apple cookies, cakes, jams, and juices to an ubiquitous array of souvenirs such as apple-shaped key rings and lacquer plates, harvesting baskets, and apple-decorated hand towels, ear picks, back scratchers, postcards, and door curtains. In Hirosaki City, a four-foot apple statue proclaiming that Aomori grows “the best apples” greets passengers at the train station and panels showcase the various kinds of apples grown in the area. A few blocks up the street in a city park, the local Lions Club has erected an apple-themed statue. They chose the ever-
popular naked woman motif found in most any Japanese city, but in a local twist she reflectively holds an apple (Figures 5.21-5.25).

Figure 5.21 Lion’s Club statue in Hirosaki City

Images of apples and the people who grow them fill the pages of tourist brochures as well. Pictures of apple trees with bright red apples framing a distant Mt. Iwaki, blue skies and bright red apples overlaid with the beloved “Apple Song” or recitations on the area’s pure nature, fine water, and clean air find their way into much of the prefecture’s tourist literature. So too, does the image of the apple farmers wearing traditional headscarves and baggy blue cotton pants.

Aomori’s rice growing predominance also plays into the image of the prefecture as a rural northern cultural hearth. Former Prime Minister Ikeda Hayato (prime minister from 1960-1964) elucidated the connection between agriculture and cultural roots while on a visit to Aomori. “Agriculture is the ‘rice seedling bed’
Figure 5.22 The giant apple statue in Hirosaki’s train station (1997)

Figure 5.23 Apple posters illustrating the kinds of apple grown in Hirosaki (Hirosaki Train Station, 1998)
Figure 5.24 One of three “Miss Apples” poses for a photographers vying to take the best picture of her (Hirosaki City Apple Festival, Fall, 1997)

Figure 5.25 Apple-shaped festival floats in Hirosaki’s famous Neputa Festival (August, 1998)
(naeshiro) of the people,” Ikeda noted, “...within Aomori Prefecture, Tsugaru is the rice belt. Thus Tsugaru and Tsugaru’s households and society are the naeshiro of the [Japanese] people” (Hayashi, 1984).

New developments in rice agriculture have played into the rural heartland image, including the newest brand of rice developed in Aomori, “Tsugaru Roman.” “Roman,” in this case of Japanese loan-word shortening, refers not to a Western cultural hearth, but to “romantic,” and, it is implied, to the “romance” of Tsugaru and the north country. Agricultural cooperatives across Tsugaru have shifted rice production almost entirely to Tsugaru Roman in the past two years after older varieties such as Mutsu Mahore and Otome did not stand up as well as the new variety in taste tests. Though Tsugaru Roman is still relatively uncommon in Tokyo outlet stores, it is hoped that the new rice will bring increased name recognition to Tsugaru.

The rice’s logo highlights the new image. A sketch of a woman with golden bobbed hair and a suit jacket holds a bundle of rice. Swathed over in bright colors, the advertisement would seem to point to the progressive, bright, modern nature of the rice and those who eat and grow it. However, the inclusion of the “roman,” of romance, alludes to the idea of Tsugaru as exotic, remote, the romantic north.

Brand name rice and rice associated with specific places has come to garner high prices in Japan’s competitive rice markets. Unblended varieties such as Koshihikari and Sasanishiki can sell for several thousand yen per kilo more than standard government rice and several hundred yen more than Tsugaru’s former most-widely grown brand, Mutsu Mahore (Onuki-Tierney, 1993; Sasamori, 1996).
Like Tsugaru Roman, names can point to the image of the region and thus the quality of the rice. Koshihikari from Niigata prefecture sells under the name “Shirayukimai” (“white snow rice”)(Ohnuki-Tierney, 1993). “Akita Komachi” alludes to a legendary Heian Period beauty named Komachi and the on-going popular legend of Akita’s beautiful, fair-skinned women (Figure 5.27). Pure water, it is commonly held, is the key to both the renown feminine beauty and the tasty rice.

Figure 5.26 A billboard for Akita Komachi brand rice on display in Akita City. “Beautiful women raise Akita rice,” the right-hand side of the sign proclaims (1998).

Regional promotion in combination with specialty crop and brand name marketing is common in the marketing of a wide variety of crops in Japan. Just as Noheji turnips command higher prices in part due to their name recognition, so to Aomori apples and Yamanashi grapes hold a special place in a country that values place-specific gifts. Apples may be apples, but if they come from the capital of
apple growing, then they are worth more as gifts than apples grown in a not-so-renown place. At the same time, regional beers (ji-bi-ru) and regional sake (ji-sake) are also becoming increasingly popular and lucrative.

5.10 New communities, new farmers

Efforts to revitalize rural regions have also included efforts to entice new farmers to the land. A lack of successors and the aging of the farm population are two of the most imminent issues facing individual farm families. As of the last national agricultural census of 1995, over 47% of Japan’s farmers were over 65 years of age. At the same time, those young men who do take over their family farm have had a difficult time finding brides. Fewer young women wish to take on the labors and long-hours of farm life that marrying a farmer demands. So too, the continued Tōhoku tradition of the oldest son moving his family into his parent’s house fails to appeal to many modern brides.

Recognizing these problems, rural regions have tried various tactics to attract or keep farmers. As mentioned above, “hometown making” (furusato zukuri) campaigns have tried to liven up life in rural communities. Other communities have advertised for new members, recruiting not only farmers, but also doctors, and women invited expressly for their willingness to become brides. Remote rural communities and in particular island communities have tried to entice new residents with subsidized housing, loan payoff programs or other such incentives.

Occasionally, national primetime television features the stories of these struggling communities. The show may highlight both sides of the story—the single Tokyo “Office Lady” who yearns for a husband and an escape from the
office, for instance, and the lonely Kyushu dairy farmer who wants a wife and family. For the entertainment of the viewing audience, potential brides ferry down to Kyushu and a dating game-like match-up ensues. It is rather easy to be skeptical about the future of such marriages considering the agricultural knowledge and commitment to the land held by most of the urban office-workers with whom I am acquainted. Not all towns’ bachelor farmers can be featured on national television, however. Some lonely farmers have resorted to Southeast Asian brides met through postal correspondence and magazines, and transported up to Japan to not only a new husband, new life, and new family, but also a new culture and language. These new brides will invariably alter the culture of communities, and ironically, bringing in “outsiders” may have subversive effects on the very local culture they are meant to protect.

Other efforts have also been made to attract dissatisfied urban workers to the countryside and a life of farming. In Tokyo’s trendy Harujuku ward, the Furusato Center promotes rural tourism, homestays, and local products, and invites salarymen and office ladies to take to the plow. Colorful brochures sponsored by communities and prefectures highlight the benefits of a farming life. Brochures showcase examples of successful new farmers, and offer information on the subsidies and grants new farmers can apply for to help them get started. “Because now agriculture is interesting,” one booklet’s cover proclaims in part English, part Japanese, “in Miyagi will you also take the challenge? Let’s Try. Agriculture!” (Figure 5.27). Inside, prospective farmers can see smiling young families who have
Figure 5.27 Miyagi Prefecture’s brochure aimed at enticing new farmers
taken Miyagi’s agricultural challenge and now raise greenhouse tomatoes and flowers, rice, and livestock. Miyagi, a southern Tōhoku prefecture, will help farmers through grants and no-interest, long-term loans, the booklet says. Added incentives include the prospect of owning one’s own house, raising one’s children in the country, and having friendly neighbors (Miyagi-ken et al. n.d.)

The Furusato Center presents similar images of a clean, fulfilling country life. A wall of television screens run video clips of rice paddy, happy children, seascapes, flowers, blue sky and a collage of other images associated with idyllic rural living and values (Figure 5.28). A life-size cow statue moos periodically from a stall set between the wall of televisions and the room of computers that allow visitors to scan the “furusato” products and offerings of each of the forty-seven prefectures. Downstairs, furusato shops, including the Aomori apple shop as well as the rival Nagano apple shop, sell their products, while promoting the old hometown. A furusato restaurant also sells regional specialties including regional beers and sake, noodles and vegetable side dishes.

Since 1987, the Ministry of Agriculture, Forestry and Fisheries has also worked to promote rural life at the national level. The MAFF set up special agencies and has held such events as a recent “Good-bye Tokyo” fair to encourage new agriculture recruits (Takayama, 1998). Every year, a growing number of persons have taken up farming (MAFF, 1995b). Terms popular in the sociology literature, U-Turn and J-Turn, refer to migrants who have left rural areas for the cities but have then returned to their hometown (U-turn) or another rural area (J-
turn). However, despite the happy successes for some villages and families, overall a lack of successors and the problem of rural depopulation remain.

Figure 5.28 A television wall of rural scenes at the Furusato Center, Tokyo (1997)

So too, while the image of rural areas as repositories of cultural heritage has grown, rural areas still must struggle with negative images. When Aomori prefecture polled Tokyo office ladies about whether they would want to live in Aomori, the results were resoundingly unfavorable. Respondents saw the prefecture as “cold” (samui), “poor” (mazushi), and “dark” (kurai) (Takamatsu, 1996: 11). To the dismay of the prefectural pollsters, Hokkaido, to the north, more remote, and even colder, came out as a favorable place to live.

Popular images of the rural as idyllic, quiet rice paddy must also still contend with more mocking images of rural life. Tsugaru residents who travel to Tokyo often report that they feel ashamed of their accents and their country ancestry. So too, television gently (or sometimes not so gently) satirizes the rural.
The same fashionable talents who can show such concern about the plight of bachelor farmers one night might, on other nights chuckle at awkward farmers sending "video letters" to their children in other parts of the country, a weekly segment on one popular 1998 television variety show. Talents may also venture out into the countryside in the name of entertainment, an encounter bound to garner laughs if the high-heeled, mini-skirted talent encounters mud and cows, regional dialects and unknown foods. In many ways, it is similar to other popular television specials that send their celebrities abroad to encounter, it is implied, strange peoples and foods.

The idyllic rural and the endearing country bumpkin are, however, just two images of rural life. As society and economy have changed, so too has the definition of rural. Some academics have questioned even if “rural society” still exists in places such as Japan, the United States, or Western Europe (Mormont, 1990: 22; Lawrence, 1997; Kelly, 1986). If one does speak of the “rural” nowadays, it should be with the assumption that places, spaces, and identities are increasingly intertwined and often contested. There is generally not a firm rural-urban divide nor are there necessarily exclusively “rural” societies or “rural” economies. As Mormont (1990: 34, 35), explains:

... a country area might belong to a regional nature park; it might be a disadvantaged agricultural areas, or an industrial development zone, or a district protected because of its architectural heritage. There is no longer one single space, but a multiplicity of social spaces for one and the same geographical area, each of them having its own logic, its own institution, as well as its own network of actors.

... priorities clash: cost-effective economic production (particularly agricultural) versus residential amenity, versus the tourist potential of the local scenery, perhaps even of the local folklore. And each of
these properties of the space, however 'authentic' or 'local' or 'natural' it may be asserted to be, is in fact only valid in relation to a particular market (the market for tourist, farm, or 'natural' products) that is now no longer local, but national or even international.

Such is the case of Aomori prefecture. While Aomori remains one of Japan's premier agricultural prefectures, in 1995 only 14.8 percent of Aomori's working population was engaged in some form of agriculture, and most of these people only farmed part time. It is still a relatively large percentage, however, given that nationwide employment on farms is only 5.3 percent (Foreign Press Center, 1997; Aomori-ken Nôrinbu, 1997b). Together with processing of agricultural products, agriculture accounted for nearly 33% of the prefectures total revenues (Aomori-ken Nôrinbu, 1997b: 3).

However, other industries, jobs, and lifestyles are certainly present in the prefecture and have lead to contested uses of space, place, and imagery. Ski slope development on Mt. Iwaki resulted in the razing of apple orchards and forests. A group of local residents have also protested ski slope scars on the traditionally sacred mountain (Kanda, 1997b). Some farmers, however, freely admit that they have benefited from tourist development, and some towns have promoted what has come to be called "green tourism." In Japanese, the term "green tourism" often refers to agricultural and rural cultural tourism—tours to pick apples, harvest shellfish, stay overnight in a farmhouse, shovel snow, or to participate in other rural life activities.

At the same time, part of the "new hometown" movement associated with rural regional development also calls for industrial promotion. Since the government first declared a "depopulation emergency" in the 1960s, regional
development plans have tried to promote the dispersal of industry from the core urban/industrial belts to the peripheral regions. Promises of cheap land, ample water, and infrastructural support have padded the incentive policies as have idealistic, but often ineffectual, statements about how industry and agriculture will harmoniously coexist.

More and more factories, especially high-technology industries with low product transport costs, have moved out to the periphery, and rural regions vie for lucrative manufacturing contracts (Van der Knaap and Ghijsen, 1998; Tatsuno, 1986). For several decades Aomori too has tried to build up the local manufacturing base. A number of small local industries such as ski manufacturing, food processing, and computer programming provide employment opportunities for local residents. Larger industries include the Hachinohe Smelting Company, a semiconductor factory, and branches of Japan Nuclear Fuel, Ltd., and Mitsubishi Paper Mills (Foreign Press Center, 1997). Other ambitious plans call for making “New Town” developments around Hachinohe city in eastern Aomori, an Aomori City “technopolis,” and industrial and nuclear waste storage and refining facilities at the huge Mutsu-Ogawara industrial park site (Huddle and Reich, 1987).

The placement of three nuclear facilities in Aomori prefecture has angered groups of local farmers and fishermen who ask how Aomori can claim clean agricultural produce, air, and water if nuclear plants loom nearby. Others have protested what they see as environmental injustice, the placing of potentially hazardous facilities in poor rural areas that have few other options. However, the plants have brought new income into the struggling region. Once among Aomori’s
poorest towns, Rokkasho, the site of Aomori’s currently running nuclear waste holding plant, now boasts the highest per capita income of any town in the prefecture.

As Aomori heads towards the 21st century, its communities are carving out various niches in farming and otherwise, niches that are not always in accordance. Agriculture, industry, and tourism have all been promoted in various ways by various agencies and organizations. In many cases, these multiple activities are developed within the same spaces. National and international policies have also influenced the landscape in the form of rice reduction and crop diversification plans, and in the economics of trade. The following chapter describes some of the multitude of ways in which individual farmers and farming communities have responded to these conditions.
Chapter 6: A Variety of Places and Circumstances

The previous chapters have traced the broad history of apple growing across the Tsugaru region and have introduced issues that affect many of the region’s farmers: rice reduction policies, international trade, the rise of part-time farming, and the fluctuating fortunes of dekasegi seasonal labor. Farmers across Japan have been faced with shifts in the agricultural economy as agricultural continues to decline relative to manufacturing and the service industries. At the same time, rural regions throughout the islands face an aging of the farm population, a lack of successors, a dearth of farm brides, and the usurping of farm land for resort, industry, or residential development.

This chapter examines the human side of these changes, and is based on interviews, surveys, and observations from around southern Tsugaru, with formal survey and interview data from Onoe Town, Itayanagi Town, Morita Village (Figure 6.1). As the previous chapters have discussed, communities throughout the Tsugaru apple-growing belt face slightly different circumstances and have dealt with changes in agricultural policies and economics in slightly different ways. Climate and terrain, geographic location, economic opportunity, and demographics have all affected local agriculture. Within each community, as well, individual farm families have also made a variety of choices. As such, it is impossible to speak broadly of any single direction agriculture will take in the future, however, certain trends suggest where the region and its farmers may be heading.

In Onoe, a town of some 10,000 just a few kilometers outside Hirosaki, 65 year-old farmer Matsuda Hitoshi watches Japan agricultural systems change from
Figure 6.1 Tsugaru
the alcove of his farmhouse. "You can see it over there," he says, pointing to a nearby hillside, "an orchard where all the apples trees have been cut down because there is no one to take care of them." A denuded plot of stumps stands out against the springtime greenery of neighboring apple orchards just past blooming time. Such a sight is no longer uncommon anywhere in Tsugaru. More and more elderly farmers have given up the difficult and somewhat dangerous work of perching on ladders on their hillside plots.

Matsuda's own farm reflects, in miniature, a number of important trends in the region’s agricultural landscape. About a decade and a half ago, he and his wife invested in one of their village’s first greenhouses for growing melons. Later, the family added more greenhouses for tomatoes while still cultivating 70 ares of apples and 40 ares of rice. Tomatoes, Matsuda and his wife claim, bring not only the best returns, but are much easier on aging backs than melons, apples, or rice.

Many of Matsuda’s neighbors have diversified as well. Though rice and apples—the crops that made Aomori’s towns and villages famous—are still the two main crops in the town, many farmers are also now growing grapes, tomatoes, melons, and an assortment of vegetables for household use. Within just a section of the village, farmers grow a variety of combinations of the crops, some growing all rice, others all apples, and others a mix of rice, apples, or vegetables. In the town’s "Furusato Center" (Hometown Center) visitors can buy not only fresh produce, but also processed goods such as the village’s own wine made from local grapes, apple juice, and rice packaged in bags decorated with photographs of the town’s local landmark, a Meiji era landscape garden and manor.
Mirroring trends in agriculture in general, very few farm families rely totally on the farm for their income. "One can no longer live on rice and apples alone," is the common refrain of farmers who may depend on financial support from a son who works as a salaryman or a daughter-in-law who works at a local company. In the late 1990s in Tsugaru, it is often the elderly parents who spend the most working time on the farm, as the eldest son, his wife and even their children most probably hold down part or full time jobs in neighboring towns, particularly the regional hub of Hirosaki. Dekasegi, though still a common enough practice, is not the force it once was.

Most farmers in Onoe agree on challenges that their community will likely face in the future. A lack of farm successors looms large in the worries of many elderly farmers (Table 6.1). Some eldest sons now working solely off the farm claim that they will eventually take over their parents' agricultural work when necessary. However, today's primary farmers worry that while their children may have grown up on the farm, they know little about the actual techniques and work of farming. They are the children of farmers, but clearly not farmers themselves. Often, the child who agrees to follow in his or her father's footsteps is as unprepared for the rigors of the farm as the Tokyo office worker who is convinced by advertisements to move to the country and take up farming.

Table 6.1 Percentage of respondents reporting to have a farm successor, no successor, or undecided.

<table>
<thead>
<tr>
<th>Have successor</th>
<th>Have no successor</th>
<th>Do not know if there will be a successor</th>
</tr>
</thead>
<tbody>
<tr>
<td>54%</td>
<td>23%</td>
<td>23%</td>
</tr>
</tbody>
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Prices, combined with the rice reduction policies also concern most of the farmers surveyed. Those who have diversified will often say they did it primarily because of the *gentan*, rice reduction requirements. Apple growers expressed particular concern about the price of their fruit. The *yama gawa shijō* (mountain and river market) was a very real and immediate concern, especially for farmers who sold their crop to the agricultural cooperative. In Onoe, as in towns across Tsugaru, agricultural cooperatives did not anticipate the dramatic price drops of the 1997 season. Farmers who had been given customary advances for their crop earlier in the season, found to their dismay that they had to pay money *back* to the cooperative when apple prices fell far lower than expected. In Onoe the amount to be repaid amounted to 1,500 yen (about 14$) per box, and apple growers estimated that their agricultural income had been cut nearly in half. By the spring of the next year, with money again needed for new chemicals and other crop-related outlays, many farmers still had not paid back their debts to the cooperative. One farmer said that he would not be able to buy new clothes and goods for his family, while others considered finding additional off-farm work to make ends meet. With apple prices forecast to be similarly low in the season to come, the future seems particularly bleak.

When asked how they would respond to the price drops, farmers had a variety of responses. In about equal numbers, respondents said that they did not know what they would do, or felt they would have to quit farming if the low prices continued, or would change crops or methods of production. Of those who said they would change their methods of production or crops, many said that they would try
to move to less labor-intensive techniques such as un-bagged apples, or dwarf tree apples. Others hoped to use fewer chemicals. Most farmers, even those who continue to laboriously bag fruit and hand-thin leaves, disparage the practices as mere cosmetic measures that they wish they did not have to do, but have to do for the price benefits. Unbagged apples taste better, many will say, and even if the taste were the same, they surely require much less labor.

Mr. Asahara, a twenty-nine year old second son who works in a company yet lives on his parents’ rice and apple farm, suggests a solution frequently voiced at the agricultural cooperatives: now farmers should produce the kinds of apples that consumers want. Seemingly self-evident, the idea nevertheless points to the need for agriculture to take a more market-orientated approach. Agriculture can no longer depend on the many government supports and protections. Policies progress to survive, and gone are the days when farmers could grow fields of bland rice and still get paid high prices by a government that would buy and store it no matter the quality or the demand. Agricultural cooperatives, communities, and farmers hope that profits will increase if farmers concentrate on growing foods more tailored to consumer’s needs, and also if consumers can be made to sympathize with domestic farmers. With this in mind, many cooperatives package their produce in bags that tell about the people who produced the food and the regions in which they live. In such a way, it is hoped that consumers will have compassion for domestic producers and may forego buying cheaper imported produce if they have the chance.

However, Mr. Asahara’s farm will not be one of those promoting its regional produce. Though Asahara, the second son, and his elder brother and sister-in-law all
live on the farm, they also all work outside jobs, and none want to give them up to farm. Maybe his parents, now in their late fifties, will sell the land in five or six more years, Asahara presumes. “Farming is difficult and takes a lot of money,” he says in defense of the decision. “It is better to have an outside job.”

What to do with the land if no one will take over the farm remains a central question for many a farm family across Tsugaru. While some will sell the land, others understandably regret losing a plot of land that their family may have worked as tenant farmers generations past. Others report that they could not sell the land even if they wanted to. Hilly land with old apple orchards on it holds little value, though flat lands beside major highways or adjacent to growing number of new strip malls and large discount stores might if zoning laws permit. Other farmers who have reduced their farm area or who have given up farming altogether have solved the problem of what to do with unused land by leasing it to neighbors. In such a way, the family retains title to the land, and yet neighboring farmers who want to expand can amass larger-scale plots. Many of the farmers now farming “large-scale” fields of over three hectares are doing so at least in part on leased land. Though adding to their yearly costs, some say that leasing is actually cost effective as they do not have to pay as much in tax or buy the land outright.

A great exception to the large-scale, three-hectare farm lies across the plain from Onoe in the foothills of Mt. Iwaki. There, three families have incorporated to form Japan’s largest farm by area. At 400 hectares, Konogezaki Farm is made up of fields scattered across seventy kilometers. The owners actually own slightly over half of the farmed land, leasing the rest from neighbors who no longer farm for a
variety of reasons. Government subsidies on everything from the grains (soybeans and wheat) to the fertilizers and the equipment and even for leasing land, have helped the farm prosper in the face of cheap foreign soy and wheat imports.

Rationalizing and enlarging farms has been one of the central visions of Japan’s agricultural planners for decades, however carrying out the plans has not been easy. Slowly, Japan’s farms are growing fewer but also larger, though in 1996 nearly 48% of Aomori’s farmers were one hectare or less, with only 13% of farms exceeding three hectares (Aomori-ken Nōrinbu, 1996).

As the owners of Konogezaki Farm point out, however, even if Japan’s farm gain could more large-scale efficiency, they will still be dependent on foreign countries. Eleven hulking John Deere tractors with air-conditioned cabs plow the farm’s fields, and Korean- and Thai-made fertilizers help the plants grow. The wheat seeder is Finnish. Oil for the machines and for the base of the pesticides and fertilizers comes from the Middle East and Central Asia. “The only things domestic about Japanese agriculture are the people and the land,” one of the farm’s owners, comments, “but now even the people are scarce.” Labor is one of the farm’s biggest and most imminent problems. As more young people move out of the neighboring hillside villages, there are fewer people qualified to do farm labor.

In Namioka near Onoe, Mr. Tsugawa, a seventy-year-old apple grower also faces the problem of labor. He knows that his children will not come back to Tsugaru to take over his apple orchards. He does not retire, he says, because “farmers never retire.” He enjoys the work, but worries about what will happen to his community in the future. The situation is “terrible” (osoroshi), he says, and like
Mr. Matsuda in Onoe, he points to denuded hillsides that once bore apple trees. He and his neighbors are aging and cannot take care of the hilly lands. Recently, it is even difficult to find sufficient labor to cultivate even the best flat lands. As in other parts of Tsugaru, trends in demographics can be easily seen in everyday places and events. Older women are more common workers in the apple orchards than young or middle-aged men. Ask a friendly grandmother who helps her in the orchard and she may well respond that she and a few neighbors do all the work. Her children and grandchildren are more likely to be working in Hirosaki, Sendai, or Tokyo.

For Mr. Tsugawa whose mouth glitters with enough gold dental work to make a small gold coin, however, agricultural has provided a good life. He and his wife enjoy a new two-story house complete with cable television, leather couches, and a formal sitting room. His secret, he says, is independent direct marketing, an option increasing numbers of other farmers are also trying. Direct marketing to a network of friends or acquaintances often offers the possibility of higher returns, especially if farmers can establish a network of customers interested in their specific product whether it be organic produce or simply an affinity with the farm itself.

However, though a few farmers have been quite successful with these new marketing methods, others have held back, preferring the safer, known relationships with agricultural cooperatives or middlemen. While offering the possibility of high returns, marketing by oneself can also include a number of costs, including increased labor, investment in equipment, shipping costs, and the unkind possibility that false buyers might not pay for goods received.
As it is, marketing methods are quite varied even within communities. While one family might market predominantly through a middleman, their neighbor might send the bulk of his harvest to the agricultural cooperative. Just down the street, another farm household may send a portion of their fruit off directly to consumers, sell a portion to one or several middlemen, and still send another portion off to the agricultural cooperative as a concession to personal relationships with the cooperative if not for monetary reasons. Over half of respondents in all three towns, however, reported sending most or all of their apples to their local agricultural cooperative.

In Itayanagi town, survey respondents described similar circumstances. Like Onoe, Itayanagi focuses on rice and apples, with rice largely dominating the flat plains and apples taking over wherever the topography shows a slight rise. Rice reduction policies have driven a number of farmers to convert paddies to orchards. Orchards now occupy the flat lands where rice used to hold exclusive preference. The town that calls itself a “hometown of apples,” and has sought to capitalize on this name by building “Ringo Works,” the apple-themed museum, park, and processing center. A new festival, the Apple Lantern Festival, complements the Ringo Works center and reinforces the idea of a community built around apple production.

Unlike Onoe, however, fewer survey Itayanagi respondents had or expected to switch to vegetables or other crops. Out of forty surveyed households, only five grew crops other than the customary rice and apples. Garlic, asparagus, and
“miruna” a green vegetable marketed to Kyoto for tea ceremonies, were some of the various alternative crops being grown in the village.

A group of elderly women taking an outdoors lunch break after a long morning in the apple orchards expressed commonly-heard uncertainties. Complaining about the rice reduction policies and lamenting the current apple prices, they commented, as others had, that it was becoming impossible to survive on agricultural incomes. Someone in the household had to have other work, be it deksasegi or a part-time job in town, otherwise the family could not make it. Down the street, their neighbor predicted that if the poor prices continued, apple orchards would decrease bit by bit in the community, changing its landscape, and its focus.

The majority of Itayanagi respondents, as in Onoe, agreed on certain rural predicaments. Respondents mostly thought that increased imports would harm their livelihoods. Those that boldly proclaimed that current imports would do no harm since the imported goods were not what Japanese consumers wanted, tended to agree that Fuji apple imports would hurt the prefecture. Respondents also generally agreed that even if it were not the case in their own household, a dearth of successors, falling agricultural prices and the loss of farm land to abandonment and the encroachment of other uses would erode their farming community.

In Morita village located on the northern edge of the apple-growing belt, conditions were similar, yet with a more desperate tinge. Apple growers throughout Tsugaru will claim that their apples are delicious, healthy, and well-cared for. However, the highest-priced apples and those that sell at the best Tokyo and Osaka wholesale markets come from the center of the apple-growing belt, the area of the
southcentral Tsugaru plain near Hirosaki City and Soma and Owani villages. Just some forty kilometers to the north, crossing over the hills into Morita, the plain becomes colder and wetter, and winter blasts from the Sea of Japan are accompanied by late frosts and early freezes. Apple harvests commonly come a few weeks later than the earliest harvests of southern Tsugaru, yet a few weeks and small differences in size and sweetness can make quite a difference in differentiating markets. Northern Tsugaru apples more commonly sell in markets in western Japan, being shipped far south to Hiroshima.

Morita marks sits on the northern border of apple cultivation. Further north the plain is sown with rice and finally ends in seaside fishing villages. In Morita, while some farmers talk of greenhouse crops and changing methods of production to include more dwarf trees and non-bagged apples, even more seem inclined to talk about the dire future of their family farm. If the prices stay low, many say, they will have to give up farming altogether.

Many Morita families depend at least in part on dekasegi income. Western and Northern Tsugaru, along with the hilly regions abutting the plain, have traditionally supplied a higher percentage of dekasegi workers. Out of 37 farmers surveyed, 18 had relied on some sort of dekasegi income either in past or presently. Dekasegi is, of course, not limited to families in the hilly regions. The practice is also quite common in the plains communities, especially in predominantly rice-growing areas. Itayanagi respondents, for instance, reported similar rates of dekasegi, with 15 out of 34 persons answering that they presently went on dekasegi or had done so in the past. Without the added income of apples or vegetables and
with the combined effects of rice reduction policy and falling prices, many rice farmers have taken off-season jobs. In Hiraka town, adjacent to Onoe and Hirosaki, a rice farmer and dekasegi worker, says that most of his community does dekasegi. Though they are in the heart of the Tsugaru plain, they are like a “fishing village without the fish,” he says, a reference to the number of people who migrate from the prefecture in the off agricultural season. It would be difficult to guess so from looking at the community where large new houses and cars abound, both the fruits of, and reasons for, the dekasegi.

However, just as the fortunes of agriculture have fluctuated so have those of dekasegi workers. Whereas it used to be easy for Tsugaru workers to line up temporary seasonal jobs, economic recession has led to cutbacks and fewer openings for dekasegi workers. At the same time, salaries have fallen. According to a larger-scale apple grower, construction jobs in Tokyo used to pay over 15,000 yen (approximately $140) per day during the peak of the Bubble economy years. However, his pay has fallen to 10,000 yen per day in the recent recession years. With such a large-scale operation (three hectares) he could only afford to leave the farm from December to the end of February. Other neighbors who left for dekasegi followed similar timeframes, some leaving around November and returning in the February or March for the start of the busy agricultural season.

Some dekasegi workers left for even longer periods of up to five or six months. If a worker left in November and stayed until April, he or she would have worked six months and would thus be entitled to unemployment pay for three additional months, an incentive that keeps some dekasegi workers away for half of
the year. *Dekasegi* has a long tradition in northern Tsugaru and in Aomori as a whole so it is certainly not surprising to encounter a large percentage of families engaged in it. In the early 1990s, though a decrease from earlier decades, 10% of Morita’s total population was engaged in *dekasegi* (*Aomori-ken Dekasegi Taisaku*, 1992). Certainly the peripheral location of Morita contributes to the number of seasonal migrants. While some workers report finding seasonal jobs within Aomori prefecture, at apple processing plants or in Hirosaki, for instance, others go to ski resorts in the Japan Alps, automobile factories in Tokyo, or construction jobs in Osaka or Gifu.

*Dekasegi* stands as a timeworn tradition in eastern Tsugaru and in spite of its social costs, it has helped farmers maintain their farms. However, Morita farmers say as strongly as those in other villages that if price drops for rice and apples continue, it will be difficult if not impossible for them to keep farming. Just out of town, in the rolling hills outside the village, one can easily see where some farms have gone under. Abandoned apple orchards fill of old trees, gone to disease and overgrown with weeds. However, at least these fields still have their soil and plants. Morita farmers who are ready to give up farming or in need of some quick money have recently found a new side industry: selling their land’s black soil (*kuro-tsuchi*).

In scarred fields scattered around the hillsides, earth diggers have scraped off not only the old apple trees, but also the top few feet of soil. Bulldozers wait in muddy fields for dump trucks to come and carry off the rich volcanic topsoil that sells for a mere 8,000 to 9,000 yen ($65 to $75) per ton for use as potting soil. So far, the Morita agricultural cooperative estimates that about 40 hectares has gone to
the bulldozers, yet the practice has in no way come to an end, particularly as lower prices continue to threaten already-shaky farm households. Selling off the topsoil does not necessarily doom the land for future production. Some farmers have sold their topsoil in between cutting old orchards and putting in new orchards of dwarf trees. However, the newly exposed red soils require more fertilizers to bring the land back to productivity, and with that, the problems of higher costs for fertilizer and potential pollution problems from runoff. In addition, disruption of the soil structure can also effect moisture retention and may make the fields more susceptible to erosion and flash flooding.

Figure 6.2 A former apple orchard, razed, with its black soil removed. New *waika* orchards stand in the background (Morita, June, 1998)

To try to spark up life in the community and lure in visitors, Morita village, like so many other communities, has created a theme aspect to its village and its
agricultural produce. Government grants for resort/infrastructure development helped the village build a Greek-style coliseum to hold musical, theater, and sporting events. Pillars and statues line the amphitheater as well as the public restrooms. A sumo platform, in honor of the village’s longstanding sumo tradition, stands more prominently near the road, and visitors can stay in the center’s log cabins. Originally, the village planned to pay homage to more world monuments, but when money ran out, the amphitheater was all that was built. Still, Morita proclaims itself “Tsugaru’s World Village” (Tsugaru Chikyū Mura) and its local agricultural products bear that name and images of the Greek Theater. The Morita agricultural cooperative sells raw apples as well as apple juice and apple pies with the Morita logo. The village also prides itself in its rice and ham production.

Figure 6.3 The “World Village” stage in Morita village (June, 1998)
Figure 6.4 Morita village’s agricultural products and the Greek theater simultaneously promoting the town.
In all, it is difficult to sum up the agricultural situation in Tsugaru. Circumstances vary by household and by village and geographic location. Most commonly, at least some members of farm households work off-farm jobs. A lack of successors, falling prices, as well as increasing imports were also common concerns among survey respondents. However, while some farmers saw their communities withering away, others were more optimistic, seeing price drops as cyclical and farm attrition as a natural economic route towards more efficient, competitive, and market-orientated agriculture.

Experimentation with new crops and methods of production such as vegetables, flowers, unbagged apples, organ produce, and dwarf apple trees, are also increasingly common, but not necessarily something that is becoming pervasive throughout Tsugaru. Some towns have become known for their specialty products: Kizukuri and its melons, for instance, and Iwaki and its corn. In connection, marketing that highlights regional and local uniqueness is important in achieving name recognition for both the product and the place and people that grew it. Tsugaru towns and the region as a whole highlight Tsugaru's nature, clean air and water, history, remote rural character, and a host of other things connected or not to the agriculture. Likewise, many communities have hoped that tourism will bolster their economic bases, but many towns too have found that one theme park or one historical attraction is not enough.
Chapter 7 Wrapping Up

Apples changed Tsugaru. At one level, apples transformed Tsugaru’s economy and society, on another, they affected the image of the prefecture. Starting as new employment for the deposed samurai, apple growing soon spread among common farmers. Apples came to represent Aomori, and through apples, one of the most impoverished regions of Japan developed a measure of economic prosperity and regional pride.

It is impossible to talk of the history of apple growing without discussing larger trends in Japanese society and economy. The history of apples in Tsugaru is woven within histories of regional development, agricultural policy, war, and the ups and downs of the economy. Tsugaru began its history as a region on the edge of Japanese society and economy. However, as Japan’s regions became more integrated, Tsugaru and its economy followed suit.

Fortunes of the region follow the fortunes of its farmers, and concurrently the fortunes of farmers followed those of the nation. During the war years, apple production was cut quite literally as farmers razed orchards to make way for what the government called the “emperor of foods,” rice. As the nation recovered from the war, apple production again grew, picking up pace with increased consumer demands for fresh fruits and vegetables. Vigorous promotion again reminded Japanese that Aomori and, in particular, Tsugaru, was the apple capital of Japan.

At the same time, images of the region itself changed. With a rapidly growing majority of the population now living in urban areas, rural nostalgia and
romanticism swelled. Tsugaru as a heartland, Tsugaru peasants as bearers of the Japanese tradition, and agriculture as the heart of a Yamato spirit all became images both on tourism brochures and apple boxes. Not unique to the modern era, rural and agriculture-based nostalgia were nonetheless important to the postwar period and aided efforts to revive regions depopulated by rural flight and agricultural decline.

It is interesting to look at the various attempts at rural regional development, for not only have they impacted farmers, they have also prompted a variety of changes in rural landscapes. As industrial overcrowding clogged the urban/industrial cores of Japan, various prime ministers from the 1960s onward declared the “Age of the Regions.” Plans have called for industrial diffusion to the periphery, combining visions of farmers working in factories while maintaining the traditional paddy landscape. To some extent industry has diffused. So-called rural Japan has become more and more urban, and it is by no means uncommon to find a paddy next door to a multi-story “mansion” apartment complex, factory, or golf practice range.

However, despite agricultural decline, food production remains an integral part of Aomori life and economy. Agricultural updates and crop forecasts fill the local news even as it broadcasts from urban centers. Apple images decorate train stations, village halls, and murals. Young women compete for such titles as “Miss Apple,” “Miss Tsugaru Rice,” and “Miss Aomori Clean Rice.” Though only 14.8% of the prefecture’s working population engages in agriculture, agriculture is pervasive, and important both culturally and economically.
With apple prices down, the prefecture’s economy has suffered and rural communities have suffered. To wonder about the future of agriculture is easy; to predict what will come is impossible. Though the Ministry of Agriculture Forestry and Fishing issues yearly statements hoping for larger farms, young farm recruits, and more specialty crop production, change is slow in happening. The older generation that makes up the bulk of Japan’s farming population is reluctant to change as retirement approaches. Low prices and increased foreign competition also make it difficult for new farmers to consider taking up farming. As a number of Tsugaru farmers lamented, today one cannot live on agriculture alone.

However, though agricultural subsidies and the rural-based political lobby have lost some clout in recent years, agricultural support and protection is certainly no longer a thing of the past. Agricultural protection has been praised as a way of preserving rural landscapes, ways of life, communities, and even national social stability. Protecting agriculture may always be immediately economically rational or even easily politically manageable in today’s international arenas. However, what price can be put on cultural heritage, traditions, landscapes, and ways of life? Places and their traditions matter not just to tourists on nostalgic journeys, but to the people who make their daily lives there. If economists’ visions of perfect comparative advantage were to extend across the globe, what would happen to Japan’s farmers and regions, not to mention regional agriculture in other nations?

Despite their relatively short history, apples hold a special place in Aomori. For several generations numerous Tsugaru households have made apple growing their life’s work. It is difficult to image Tsugaru without apples and surely though
the current price drops may drive some farmers out of business, others will find ways to adapt and survive. At the very least, the Japanese consumer’s preference for beautiful gift fruit will provide one niche market that Japan’s farmers can always be sure to remain competitive within.
References


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Hatae Kyukichi and Saitō Kōji. 1976. Aomori Ringo Hyakunen-shi (One-
hundred Years of Aomori Apples). Aomori: Aomori-ken Ringo Hyakunen
Kinenjigyōkai.

VXXXIV: 69-73.

Hayami, Yujiro, in association with Masakatsu Akino, Masahiko Shintani and
Relevance to Asian Development. Minneapolis: University of Minnesota
Press; Tokyo: University of Tokyo Press.

Hayami, Yujiro and Saburo Yamada. 1998. Agricultural Research Orginization
in Economic Development: A Review of the Japanese Experience. in
Garland Publishing, Inc.

Hayashi, Tatsuo. 1984. Jifubuki to Daichi no Naka kora—Tsugaru no Hitobito
Volume 4 of Nihon Minshū no Rekishi. Tokyo.

Hendry, Joy. 1993. Wrapping Culture: Politeness, Presentation and Power in


Section.

Hirosaki University Faculty of Agriculture Nōgyō Seisan Ryūtsu Kōza. 1993.
Shinkō Yasai Sanchi no Genjyō to Kongo no Hōkō: Aomori-ken Shimoda
Machi Nōson Chosa Dai 3 Tsugi Hōkokusho (Present State and Future
Directions of a Newly-Established Vegetable Production Area: Results of
Surveys from Shimoda Town, Aomori Prefecture). Hirosaki: Hirosaki
University, Faculty of Agriculture.


Howell, Philip. 1991. Review of Regions and Industries: A Perspective on the
Industrial Revolution in Britain, Pat Hudson, ed. Economic Geography 67(2):
167-69.

Huddle, Norie and Michael Reich. 1987. Island of Dreams: Environmental


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Miyagi-ken, et al. no date. Let's Try Agriculture. Miyagi-ken, Zaidan hôjin Miyage Nōgyo Ninaite Kikin, Miyagi-ken Nōgyo Kaigi, Kaku shichōson Ninaite Ikusei Senta- (Miyagi Prefecture, Miyage Foundation for Funding New Entrants into Agriculture, Miyagi-ken Agriculture Support Association Center), eds.


Tōō Nippōsha, ed. 1974. Me de Miru Aomori Ringo no 100 Shi (Looking at 100 Years of Aomori Apples). Aomori City: Tōō Nippōsha.


Appendix A: English Translation of Survey

1. Name: 

Address:   Telephone number:

2. At this time, who lives in your household and what is their occupation?

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Sex</th>
<th>Age</th>
<th>Occupation (full or part-time?)</th>
<th>Hours worked per week for each occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>e.g. sister</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. What crops do you grow and what is the approximate income from each?

<table>
<thead>
<tr>
<th>Crop</th>
<th>Area Cultivated</th>
<th>Approximate Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Up to this point, what changes, if any, have you made to your farm? Are there any changes you are thinking of making in the future? Please consider the following categories:

1) Change in area cultivated (for example, buying new land, or decreasing cultivated area due to rice reduction policy)

2) Change in production or kinds of crops (for example, tensaku, greenhouse crops, dwarf apple trees)
5. Please list the channels through which you market your produce, and the approximate percentage of each crop distributed through each method.

<table>
<thead>
<tr>
<th>Crop</th>
<th>JA cooperative</th>
<th>Merchant/Middleman</th>
<th>Wholesale Market</th>
<th>Independently</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. If you distribute your produce through a merchant or middleman, what are your reasons for doing so? How does distributing through this route compare to other routes?

7. If you distribute your produce independently, what are your reasons for doing so?

8. In your household, is there a successor who will take over the farm in the future?

9. If your household does not have a successor, what do you plan to do with the farm in the future?

The following questions are questions regarding household income in the region. They are designed only to get an idea of the farm economy in Tsugaru.

10. About how much was your household income last year? Please choose from one of the categories below (categories given in “10,000 yen, thus <100 = 1,000,000)

<table>
<thead>
<tr>
<th></th>
<th>100-200</th>
<th>200-300</th>
<th>300-400</th>
<th>500-600</th>
<th>600-700</th>
<th>700-800</th>
<th>800-900</th>
<th>900-1000</th>
<th>&gt;1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;100</td>
<td>100-200</td>
<td>200-300</td>
<td>300-400</td>
<td>500-600</td>
<td>600-700</td>
<td>700-800</td>
<td>800-900</td>
<td>900-1000</td>
<td>&gt;1000</td>
</tr>
</tbody>
</table>

11. In your household, is there someone who does *dekasegi* or seasonal labor?
12. If there is presently someone in your household who does or used to do *dekasegi*, please answer the following questions.

1) When did he/she/you start doing *dekasegi* (what year)?

2) Where do you go for *dekasegi*? (what prefecture, what kind of job site?)

3) About how long do you usually go on *dekasegi*?

13. The following statements relate to agricultural policy and agricultural imports. Please indicate if you 1) agree strongly, 2) agree, 3) do not know, or, 4) disagree.

_____ Red and Golden Delicious apples have been imported from America and New Zealand. This have an effect on Aomori’s apple-growing households livelihoods?

_____ If Fuji are imported, this will have an affect.

_____ Domestic apple prices are low, and this has probably been a difficult year for many apple growing households.

1) What affects have the low prices had on your household?

2) What changes might you make due to the prices?

_____ The national and prefectural governments should help farmers with more supports.

_____ The national government should be more strict about import restrictions.

14. Below are some common social and economic problems facing farm families. How important an issue is each to your farm? Please choose from the following categories:

1. very important  2. important  3. somewhat important
4. not very important  5. not important

_____ a lack of successors
_____ low prices for agricultural goods
_____ lowering of assistance money
_____ increased imports
_____ high costs of running farm
_____ high debts
_____ lack of helpers
_____ aging farm population
empty, unused land in community
agricultural land being used for other purposes (e.g. housing)
difficult to amass large plots of agricultural land
others? Please explain

15. In the years to come, how do you feel Japanese agriculture will change? So too, what do you think about the future of your family farm?
Appendix B: Survey, Japanese Version

対象者の氏名： 調査担当者：
1998年7月

1. あなたの現在の住所と電話番号

住所： 電話番号：

2. 家族について（あなた自身と、現在同居している人を含めた家族全員についてお答え下さい。）

<table>
<thead>
<tr>
<th>続柄</th>
<th>性別</th>
<th>年齢</th>
<th>職業（専業・兼業）</th>
<th>1週間の就労時間</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. 主な農作物は何ですか？

栽培作物 | 耕地面積（a） | おおよその年収（税収入） |
---------|---------------|-------------------------|
         |               |                         |
         |               |                         |

4. 今までで、あなたの農業経営はどんな点で変わりましたか？変わったのであれば、どのように変わったのかお答え下さい。また、今後自分の農業経営をどのように変えていきたいかもお答え下さい。
1) 農地規模の縮小（または拡大）について
EX) 土地の売買、減反による転作など

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2）栽培作物や品種について
EX）転作物、ハウス栽培、ワイ化りんごなど

5．農作物の出荷についてお答え下さい。以下の出荷先にあなたが栽培したうち何％出荷していますか？自給用作物以外の全ての農作物についてお答え下さい。

<table>
<thead>
<tr>
<th>農作物</th>
<th>J A</th>
<th>商人</th>
<th>市場へ直接</th>
<th>直産・個人</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td>%</td>
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<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
</tbody>
</table>

6．商人へ出荷している人に聞きます。
あなたが商人に出荷するのはどうしてですか？他の出荷先と比べて、商人へ出荷することの良い点はどんなことですか？

7．個人出荷している人に聞きます。
あなたが個人出荷（宅配）をしているのはどうしてですか？他の出荷先と比べて、個人出荷の良い点はどんなことですか？

8．あなたは家の農地を引き継いで農業をやってくれる後継者がいますか？また、それは誰ですか？
9. 後継者がいないとお答えした人に聞きます。
あなたが農業から引退したあと、農地はどうしますか？
EX）農地を売却、依託、そのまま残すなど

次の質問は世帯の収入に関する質問です。この回答は、津軽の農村の経済状態を
より正確に把握するために用います。

10. あなたの世帯における年収はおよそどのくらいですか？あてはまる金額を丸で
囲んで下さい。

<table>
<thead>
<tr>
<th>100万円以下</th>
<th>100〜200万円</th>
<th>200〜300万円</th>
<th>300〜400万円</th>
</tr>
</thead>
<tbody>
<tr>
<td>400〜500万円</td>
<td>500〜600万円</td>
<td>600〜700万円</td>
<td>700〜800万円</td>
</tr>
<tr>
<td>800〜900万円</td>
<td>900〜1000万円</td>
<td>1000万円以上</td>
<td></td>
</tr>
</tbody>
</table>

11. 家族の中に出稼ぎ、あるいは季節労働をしている人がいますか？

12. あなたの家族の中で現在出稼ぎに出ている人、または出稼ぎ経験のある人が
いれば、次の項目についてそれぞれお答え下さい。

1) 初めて出稼ぎに出たのはいつか（何年くらい続けているのか）

2) 出稼ぎ先はどこか（都道府県名・職種など）

3) 出稼ぎ期間はどのくらいか（何月に出て何月に帰ってくるのか）
13. 以下の質問は農業政策と農作物輸入に関するものです。
◎：強く思う、○：そう思う、△：わからない、×：そうは思わない
上の記号を使ってお答え下さい。

レッド・ゴールデンデリシャスがアメリカやニュージーランドから輸入
されたことは、青森のりんご農家の生活に影響を与えている。

もし、フジが輸入されることになれば、青森のりんご農家の生活に影響
を与えることになるだろう。

国内のりんごの価格が低いので、今年はりんご農家にとって厳しい年と
なるだろう。

1）この価格の低迷はあなたの家族にどんな影響を与えますか？

2）この低価格に対してあなたはどんな対応をしていきますか？

国・県は補助金をもっと出して、農家が農業だけで生活できるようにす
るべきだ。

国は輸入農産物の規制をもっと厳しくするべきだ。

14. 以下に述べるのは、一般の農家が直面していると考えられる経済的・社会的
な問題です。下記の項目があなたの家族にとってどの程度重要なものか1～
5の番号を使ってお答え下さい。

1. 非常に重要  2. 重要  3. ある程度（どちらかといえば）重要
4. どちらでもない  5. 重要でない

後継者がいないこと
農作物の価格の下落
15. あなたは、今後日本の農業がどのように変化していくと考えますか？また、あなた自身の農業経営をどのようにしていきたいと考えていますか？
Vita

The author first became interested in Japan as an undergraduate geography major at Pennsylvania State University. A year abroad studying at Kansai University of Foreign Studies in Osaka, Japan, reinforced a fascination with Japanese culture, history, art, and economics, as did later master's research in Kyoto City. The research presented in this dissertation, gave the author the opportunity to conduct research and live in Japan for an extended period, a valuable experience both professionally and personally. The author hopes to continue to research and teach about Japan and East Asia, rural and agricultural geography, and cultural geography in the future.
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Ann D. Brucklacher

Major Field: Geography

Title of Dissertation: Apples and Regional Change: Life and Economy in Tsugaru, Japan

Approved:

[Signature]
Major Professor and Chairman

[Signature]
Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

April 19, 1999