CHAPTER FOUR

Modern Tea: From Triumph to Uncertainty

The sudden arrival of Commodore Perry’s “black ships” in Tokyo Bay in 1853 signaled the beginning of the end for the Edo shogunate, in part by kicking off a price revolution that the bakufu could not contain. By 1868, the new Meiji government, under the yoke of unequal treaties with the Europeans and Americans, moved to reform Japan. The samurai class was abolished, the government centralized, and a new land tax established to provide the regime with revenues. A draft of commoners supplied a modern military machine. By 1890, the Meiji Constitution provided a political structure modeled on that of Prussia and the way lay open for rapid economic development to catch up with the Great Powers. For several decades before and after 1890, Japanese intellectuals debated the benefits of liberal democracy and the legacy of their own traditions.

The Meiji reforms, often enacted on a trial-and-error basis, proved to be generally successful. During 1894–1895 in the Sino-Japanese War and again during 1904–1905 in the Russo-Japanese War, the Japanese fought and won two imperialist wars of aggression, acquiring for themselves an empire in Asia. Around 1895, the economy achieved takeoff, or self-sustaining economic growth, and expanded quickly and greatly until 1920. Modern inventions such as the railroad, telegraph, radio, phonograph, and so on were introduced to the archipelago. Socially, everything from hairstyles to shoe brands changed, as the old society gave way to the fashionable figures of “modern boys” and “modern girls.”

Under political parties during the 1920s, the economy performed less well. In 1930, the Great Depression hit, and the military, fearful of a reviving China and Soviet Russia abroad and “un-Japanese” thoughts at
home, forced its way into power and led Japan down the primrose path of war and destruction. Between 1931 and 1945 in World War II, Japan was thoroughly defeated and the military repudiated. The country lay in ruins and the empire was gone. Americans occupied Japan as conquerors during 1945–1952 and implemented a series of reforms to demilitarize and democratize the country.

Under adroit leadership, Japan rose from the ashes of defeat. Between 1950 and 1990, the economic “miracle” occurred in which growth averaged about 10 percent per year. Social changes followed in the wake of economic expansion such as the world had never seen, and most Japanese became middle-class, able to afford to travel, live in nice homes with air-conditioning, and send their sons and daughters to university. An American scholar classified Japan in 1980 as “number one” in the industrialized world.

All of this came to an abrupt end in the 1990s. The economy stalled and stasis replaced growth. The population, already the oldest in the world, began to shrink. Under the US occupation, the constitution of 1947 had granted the people new rights and sovereignty, and rule by conservatives had been the rule. When the economy slowed to a standstill, people tried other political parties, but the conservatives remained powerful. At present, the conservatives rule a Japan still mired in no growth and more divided between the haves and have-nots. As if to symbolize the malaise of the current era, on March 11, 2011, a powerful earthquake shook Japan, killing twenty thousand in a giant tsunami and wrecking a nuclear power plant in Fukushima, causing multiple meltdowns. Today the Japanese remain affluent, and there is much to admire about their society. Increasingly, however, they are concerned about environmental matters and wondering what their fate in Asia and the world really will be.

The jewel that was the traditional tea industry has turned out to be a great asset to modern Japan. Early on, tea became one of three major exports from the islands along with silk and coal, helping to finance the growth of the prewar Japanese economy. As tea became an industry essential to national welfare, inventors began to mechanize cultivation and processing and scientists attempted to rationalize production in other ways. During the prewar years, domestic consumption of the beverage was slow to become commercialized, as many farms made their own tea. Even so, tea drinking inside Japan was ubiquitous by the 1960s, taking place daily at home and in the office. By 1980, the country was producing 100,000 tons of tea, the peak of postwar totals. Japanese green tea became a quotidian item hardly worth notice in a newly enriched Japan.
As consumers became wealthier, tea increasingly faced a powerful competitor in imported coffee, which comprised a large share of Japan's nonalcoholic beverage market by the 1970s. Producers of Japanese tea tried many tactics to regain popularity, the most successful of which was the adoption of PET bottles dispensed from vending machines and convenience stores by 1990. Due to the success of this strategy, contemporary tea drinkers hardly know how to use a teakettle. The process by which Japanese tea went from the dominant beverage to just another drink has been skillfully recorded in Japanese literature, art, and radio and TV advertisements.¹

EXPORTS DRIVE A MODERN TRANSFORMATION OF THE TEA INDUSTRY

As noted at the end of chapter 3, Japanese tea was being traded to the Netherlands and England as early as the 1600s, although in small amounts. The year 1858, when the United States and Japan joined in a treaty of amity and trade, serves as the beginning of the modern era for Japanese tea. In that year, as soon as commercial relations with Europe opened, six tons were shipped to England from Nagasaki. One year later, in 1859, Japan commenced exporting tea to its American partner. The United States became an especially valuable customer. Next to raw silk, tea was the number two export from Japan, ranging from 20 to 70 percent of total exports. Low wages were partially responsible for a Japanese cost advantage, but by 1900 that benefit was disappearing. At first profits were as high as 40 percent for Euro-American firms, but they nosedived during the period 1875–1885.

As Shinya Sugiyama has noted, many factors in the international system favored Japan’s export drive in the period 1850–1900.² First, there was a general decline in ocean freight rates, especially after the Suez Canal was opened in 1869. Second, a depreciation of gold in terms of silver helped Japan, because European and American powers adhered to the gold standard whereas Japan used silver; therefore, Euro-Americans were encouraged by costs to buy East Asian imports and discouraged from exporting to the region. Third, although the imperialist threat greatly motivated Japanese leaders and business people, because of the scarcity of coaling stations, not even Great Britain could project much military power into East Asia or Japan. Fourth, the construction of telegraphic lines to East Asia in 1871 provided added incentive for business firms to open there.

The commercial agreements established “treaty ports” in Japan, of which the most important for tea were Yokohama, Kobe, and Nagasaki.
These three ports housed 50, 30, and 10 percent of Euro-American merchants, respectively. The ports included a twenty-five-mile radius in which foreigners—mostly British—could live and carry out business. As Sugiyama has pointed out, although the ports were intended to facilitate trade for the Euro-Americans, they actually protected Japan and gave life to internal Japanese trade networks because they prevented foreigners from accessing Japan’s interior regions. The treaty ports amounted to a nontariff barrier to the Euro-Americans. Japan’s well-developed transport system, plentiful water supplies, and excellent irrigation systems took over from there.

A brief outline of the tea trade during the latter half of the nineteenth century is in order. Japan shipped its tea primarily from factories located in the treaty ports. Euro-American agents bought export tea in Yokohama (from eastern Japan) or in Kobe (from western Japan) and re-fired the tea at stations in those ports. At Yokohama, well-paid workers daily used 880 large pots to re-dry the tea for the long journey to Europe or the United States. Foreign powers such as England and the United States built commercial halls to facilitate the tea trade. Shippers attached colorful labels to their shipping containers (figure 9).

Figure 9. Tea shipping box with label. Sunpu Museum.
Japan’s chief customers were the United States, Great Britain, Russia, Canada, and Australia. The United States was a particularly important buyer of Japanese green tea during the 1860s, taking 87 percent of exports during 1865–1866. From 1871–1875 through 1891–1895, Americans increased their consumption of Japanese tea from sixty million pounds to ninety-one million, as the superior quality and lower cost of Japanese tea ousted China from the US market. Residents of New York, Chicago, and San Francisco were consumers of plentiful amounts of Japanese green tea. The demand not simply from the United States but from other countries all over the world was strong and soon led to great changes in industrial structure, technology, and the location of tea fields. Taken together, these and other changes constitute the modern transformation of the tea industry in Japan.

To understand this transformation, it is helpful to survey the industry on the eve of the Meiji Restoration around 1858. At that time, Japan was producing tea throughout the archipelago, from southern Kyushu to a line running through Honshu reaching just north of the Kanto and Niigata prefecture. Of these regions, the Kyoto-Osaka region and provinces along the Pacific Ocean ranging from Ise to Suruga maintained their positions as the leading tea-producing regions, but there were some surprises as well. Cold Miyagi prefecture in northern Honshu ranked fourth, while Niigata was twelfth, and Ishikawa was twenty-fourth. In other words, production in the frigid northern part of Japan was surprisingly high. This trend was a tribute to the growth of the industry in the Tohoku during the Edo period, as shown in chapter 3.

Another characteristic of tea production during the early years of the Meiji period was the processing of all sorts of tea, also noted in chapter 3. Each local region produced its own unique brand of tea, and people acquired a taste for each. The various methods of processing were related to the price of tea in each region. Generally speaking, tea was more expensive in the cold regions of northeastern Honshu, at 34 sen per 600 grams, even though production was high in some areas. The reverse trend was especially true of western Japan—Kyushu and Shikoku—where stir-roasted teas were prepared and the cost was merely 10 sen per 600 grams. On a nationwide basis, tea cost 16.7 sen per 600 grams. At that time, money spent for one kilogram of tea (27.8 sen) could have bought 4.6 shō of rice, a considerable volume. Growers of tea must have found their businesses to have been fairly lucrative.

In the first years of the Meiji period, Japan produced 9,522 tons of tea. The Kyoto-Osaka region led the way with 28.5 percent of production, while Shizuoka, Owari, and Mino yielded 22.3 percent. Yamanashi
prefecture had a mere .1 percent of the total, while the Kanto region produced 9.9 percent. Surprisingly, northern Japan produced 11.2 percent, while western Honshu grew about 7 percent of the total. Shikoku grew 6.5 percent. Northern Kyushu had a 9.9 percent share, while southern Kyushu produced about 5 percent. In other words, mapped upon modern tea production, cultivation was spread all over the islands. Regional specialization based on comparative advantage had not yet taken place.

The advent of a large export trade resulted in many changes for Japan’s tea industry over the long run. First, the acreage of tea production in Japan underwent a complete transformation. Reliable statistics are available from 1892, and, at first, it seems as though the land area producing tea changed very little between 1892 and the late twentieth century (1980). The 1892 total probably included an increase of 1,000 hectares per year from 1858, and so it seems that at the outset the export trade led to more land being used for tea cultivation. It must be remembered, however, that before 1858 there were many “mountain patches,” border fields, and mixed plots containing tea and other cultivars. Thus, the two figures are not really comparable. Today statisticians list both fields exclusively given over to tea and those that have multiple uses. Around 1892, 63 percent of tea fields produced nothing but that plant; in 1970, the comparable figure was 74 percent.

This relatively small increase masks important long-term changes, however. Farmers began to cultivate tea in new areas and to abandon older, less productive regions. Many of these new fields were constructed on flat highlands and rolling hills, such as those at Shizuoka. Farmers began to experiment with different strains of tea and increased the numbers of varieties. In terms of production, Japan apparently harvested about 10,000 tons in the early years of Meiji. As exports to the United States increased, that figure became 30,000 tons, where production remained until the end of the Meiji period in 1912. Soon thereafter, exports of Japanese green tea exploded, the industry became more mechanized, and the amount of tea produced in Japan reached 38,000 to 40,000 tons in the 1910s. When Japan became involved in World War II, however, the amount of tea fell back to about 30,000 tons and did not assume prewar levels again until 1955 or 1960. Then domestic consumption took off, and by 1975–1980 production was over 100,000 tons.

To produce so much more tea on about the same acreage, productivity had to increase dramatically. Since the Meiji period, productivity has risen every year except for the war years and their immediate aftermath. In 1892, ten ares yielded 50.6 kilograms of raw tea (aracha); in 1975, the same figure was 173.3 kilograms, an increase of 3.4 times. As tea leaves
contain 75 percent water, this means that the amount of raw tea leaves produced would be four times that 1975 figure. It is important to note, however, that productivity per region of Japan varied widely, depending on how many harvests the climate allowed the farmers to retrieve. The most productive areas have traditionally been the Kyoto-Osaka region and Shizuoka, followed by northern Kyushu, southern Kyushu, and the Japan Sea littoral. Productivity in the Kanto and northeastern Japan has lagged. Shikoku and the rest of western Honshu rate low productivity because of the lack of rain and the effects of erosion.

The transfer of production from mountainsides to flatland was another important trend. Makinohara in Shizuoka, developed by soon-to-be unemployed samurai families between 1870 and 1884, is the best example of this phenomenon. In 1959, there were 47,814 hectares of tea fields in Japan, and 53 percent were located on sloped land, 32 percent on highland, and 24 percent fell into both categories. These figures suggest that about 50 to 70 percent of tea cultivation took place on relatively flat land. The days of “mountain patches” situated far from roads and other transportation nodes are now long gone.

Of the types of tea that Japan has produced during the modern era, the overwhelming majority has been steeped leaf tea, whether steamed, parboiled, or stir-roasted (see table 4). Coarse steeped tea (bancha) was always next, ranging from 4,000 to about 13,000 tons throughout the modern era. “Jeweled dew,” or gyokuro, developed in Uji during the late Edo period, was a distant third, ranging from 187 to 340 tons during the Meiji era and gradually expanding to over 500 tons in 1980. Although not noted in table 4, Japan produced black tea over the entire modern period, with amounts varying from 7 tons in 1925 and again in 1980, to 3,725 tons in 1955. Surprisingly, powdered tea was not even made in large amounts during much of the Meiji period, and was processed in decreasing amounts from 48 to 24 tons before 1900. It becomes clear that collapsing the analysis of tea in Japan to include only powdered tea significantly distorts the place of teas in modern Japanese society.

In terms of the geographical distribution of production centers for these various teas, powdered tea has been processed most abundantly in Aichi prefecture and Kyoto is no longer the leader in this area. Shiga, Fukuoka, and Mie also make powdered tea. Gyokuro has been a good export for Fukuoka and Shizuoka, ahead of the Tokugawa center in Kyoto. Regions that use straw or netting to guard against frost may be found throughout the archipelago, and that tea is known as kabusecha, a sort of middle ground between regular steeped tea and “jeweled mist.”
Surveying the entire modern period, scholars have noted that the production of \textit{gyokuro} has grown by 2.8 times and powdered tea has grown by a factor of eight; but taken together in 1980 these teas did not even equal 1 percent of total tea production. \textit{Sencha} has grown by seven times and stir-roasted tea by three. Coarse steeped tea (\textit{bancha}) has about doubled. A major reason that steamed, steeped leaf tea has grown so quickly and occupies such a large proportion of Japan’s total tea output is that almost all tea given over to export has been \textit{sencha} (table 5). Usually about 30 to 40 percent of all steeped tea was shipped abroad as an export, with the rest consumed domestically. Eventually, Japan added homemade black teas, oolong tea sent to the United States, green teas shipped to Russia and North Africa, and powdered tea dispatched to Mongolia.\textsuperscript{9}

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Steeped</th>
<th>Coarse steeped</th>
<th>Powdered</th>
<th>Gyokuro</th>
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<tr>
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<td>11,293</td>
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<td>13,616</td>
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<td>17,956</td>
<td>7,108</td>
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<td>30,393</td>
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<td>–</td>
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<tr>
<td>1905</td>
<td>25,596</td>
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<tr>
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<td>23,531</td>
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<tr>
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<td>55,463</td>
<td>8,733</td>
<td>269</td>
<td>268</td>
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<tr>
<td>1965</td>
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<tr>
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<td>79,996</td>
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Note: All figures are averages given in tons.
The proportion of raw tea (aracha) exported ranged from 60 to 90 percent during the Meiji period, but declined steadily thereafter. The main reason for the decline was the establishment of tea plantations in India, Sri Lanka, and Indonesia and the increasing popularity of other beverages, especially coffee. Tea exports also peaked around World War I, as England imported Japanese green teas in place of the more customary black teas that were then less available. The effects of the Great Depression and World War II are also apparent. Japan tried to replace previous markets by sending green tea to the Soviet Union and North Africa, but with few results. At different times, businessmen and government officials tried various experiments with techniques from China as well as domestic methods, but the outcomes were not long-lasting.\(^{10}\) Production dropped precipitously right after World War II, partially because Americans in great

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**Table 5**  Tea exports, 1884–1980

<table>
<thead>
<tr>
<th>Year</th>
<th>Total produced</th>
<th>Total exported</th>
<th>Percent exported</th>
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</thead>
<tbody>
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</tr>
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<tr>
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<td>86,814</td>
<td>1,803</td>
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<tr>
<td>1975</td>
<td>98,156</td>
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<tr>
<td>1980</td>
<td>101,487</td>
<td>3,043</td>
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</table>

*Source:* Ōishi, Chagyō hattatsu shi, p. 329.

*Note:* Amounts are averages given in tons. Figures for total production differ slightly from those listed in table 4. Because amounts are averages, percentages sometimes vary.
numbers took up the habit of drinking coffee. During the period 1950–1980, production grew to new heights, but it was almost completely for domestic consumption.

The modern era naturally falls into three subperiods with the following general characteristics. Between 1868 and 1925, most commercial tea went to the export market; techniques of cultivation and processing saw many improvements and partial mechanization; a large (mostly female) workforce tended to the harvest and processing; and domestic consumption included lots of the beverage made at home. Between 1925 and 1980, rationalization and mechanization of cultivation and processing reached a peak and eliminated the need for most of the female laborers; drinkers imbibed tea primarily through purchase as the country urbanized and incomes multiplied; and more affluent consumers turned increasingly to imported coffee instead of tea beginning in the late 1960s. After 1980, tea production and consumption faced decline in Japan, and exports revived somewhat as green tea found a niche market around the world. The recent creation of new foreign markets partially explains how Japanese green tea ended up in destinations as disparate as Cape Town, South Africa, and St. Louis, Missouri.

TEA CULTIVATION AND PROCESSING, 1868–1925

The period from 1868 through 1925 evinced several new trends in the production of tea. The first of these has already been mentioned: the opening of new tea fields on flatter lands. In 1869, about 250 samurai—nearly a thousand people including their families—began laboring at Makinohara in Shizuoka. With the help of local farmers, the work advanced quickly. In 1871 there were 200 chō; in 1877, 500; by 1890 the figure had grown to 600 chō; by 1916 it was 1,600 chō; and in 1930, 2,987 chō. Sayama in Saitama prefecture, located on a low plateau, is another example. It has been developed since the late Edo period. By 1877, Sayama ranked eighth in Japan, producing 418 tons; and by 1883 that figure was 1,112 tons, placing Sayama fourth. In northern Ise, too, an area with low hills produced 759 tons of tea by 1877; and by 1883 that figure was 1,770 tons, ranking northern Ise third in Japan. Even Miyazaki and Kagoshima, regions where mountain patches had predominated, witnessed similar trends.

Improvements in the technology of tea-field management represented a second characteristic of the industry during 1868–1925. One advance was in the area of fertilizers. During the early Meiji era, farmers did not use fertilizers very much. In 1865, however, producers at Makinohara applied night soil, with good results. Without any fertilizer, scientists have
determined that ten ares of land will produce no more than 400 kilograms, and for most of the Meiji period, yields were about half that. By 1925, the most advanced regions of tea production—Shizuoka and the Kyoto-Osaka region—reached 400 kilograms, mostly because of the application of fertilizers. By 1925, these fertilizers were often chemically produced, rather than guano or night soil. In 1903, the Experimental Laboratory for Tea Processing of the Agricultural Office (Nōmukyoku seicha shikensho) produced the results of a five-year study advocating fertilizing during the winter and in the spring when new shoots were just starting to appear.

Farmers also were advised to manage their lands better in other ways. In 1902, the same experimental laboratory advocated deep plowing during the tenth to eleventh months, turning the soil over to cover the roots of the tea bushes at the same time as the winter fertilization, and weeding during late April through late May. Veteran farmers also chimed in on this topic, referring to the need to cover the roots with straw.

Tea producers also created new ways to deal with insect infestations. Most farm households in the early Meiji period reserved notations for losses due to insects, and the general way to deal with them was to burn torches or fires, producing smoke to drive insects away. The Experimental Laboratory listed ten species that afflicted tea farmers. Beginning around 1900, chemical insecticides came into use, the early popular ones being coal derivatives and pine tar. Around 1920, sulfuric nicotine was imported from Singapore and the United States. Pamphlets detailing which insecticide (including simply trapping) worked best on each variety of insect appeared to aid farmers with this serious problem.

Another advance was the adoption of pruning to encourage the proper growth of the tea bush. Ōkura Nagatsune, whose work was discussed in chapter 3, had been the first advocate of pruning in the early nineteenth century. Yet throughout the period before 1868, pruning had rarely been practiced, and as a result tea bushes grew quite tall, especially in the mountains. At first the pruning took the form of merely chopping down the bush with a sickle. It was much easier to pluck the bushes at harvest time, as bushes grew in a more uniform way, quality improved, and the number of new tea leaves picked increased. Bushes might be taken at the roots, somewhere in the middle, or higher up. In 1883, Ōtsuka Giichirō (1844–?) became an early advocate of cutting the bush to the root about once every five years. In 1902, the Experimental Laboratory wrote that pruning should take place after the first plucking to encourage a better second harvest. It soon became standard practice at fields where steeped tea, “jeweled dew,” and fine powdered teas were produced.11
Advancements in tea-leaf plucking encompass a third important development. Throughout history, this task had always been performed by hand, a highly labor-intensive procedure. To understand the variation in picking methods, a more detailed discussion of how the tea plant grows and matures is necessary. New soft shoots contain the highest concentration of the vital ingredients of tea—caffeine, tannin, and amino acids—while the more mature leaves have less. Traditionally, there had been five methods of handpicking the leaves, including placing the shoot between the thumb and forefinger and snapping it off, a method by which an individual could usually count on harvesting about ten kilograms per day. This was the standard and best method, but there were also methods that called for using the fingernail, reaching down farther in the bush to grasp stalks, and using both hands. The advantage of these other methods was that the picker could pluck more tea in a day, anywhere from fifteen to fifty kilograms. Usually for new shoots used in the finest teas, such as “jeweled dew” and powdered tea, the picker used the standard method. As the harvest progressed and new shoots disappeared, however, the other methods were employed to great benefit.

Beginning around 1883, though, Shizuoka farmers invited the expert Sakai Jinshirō (1842–1918) to instruct them about their tea cultivation, and he recommended using both scissors and a sickle to harvest the thicker, older stalks. By 1890, these instruments were also employed for pruning and cutting the bushes back after the harvest. The use of scissors to pluck tea stalks in later pickings helped to raise the efficiency of harvesting tea leaves somewhat.

Yet the use of scissors did not really change tea picking that much. Just as in the medieval and Edo eras, pickers took tea leaves at different times, first plucking the new soft shoots and then gradually progressing to the older, tougher stalks. Because tea shoots and stalks became harder (and thus less filled with their constituent compounds) at roughly the same time, even using scissors for the later harvests did not really change the job that much. Owners of large tea fields were required to employ lots of female pickers (chazumi fu) at one time. Typically, tea processors hired between two and twenty young women per household to pick tea. It was seasonal labor and embraced wide swaths of Japan where tea was a major business.

The use of scissors should not be entirely dismissed, however. Eventually, this tool came complete with a net to catch the tea leaves. Still, fears about quality continued, and the use of scissors did not really spread around Japan until 1918. Even then, tea scissors could only be used on relatively flat lands, where one picker might harvest up to 150 kilograms a day. The
added efficiency (a factor of ten) made it worthwhile to sort out new shoots from older, harder, less tasty stalks and twigs.

The establishment of better methods for rolling leaves for steeped leaf tea (*sencha*) was a fourth development. In 1871, officials in Hikone domain located near Kyoto published *An Illustrated Explanation of Tea Processing (Seicha zukai)*. While the book contained advice on everything from planting seeds through storage of the finished product, its description of processing had the most import. According to this manual, picking should take place about eighty-eight to one hundred days after the start of spring according to the lunar calendar, and for every five or six new shoots pickers should leave one or two unplucked. These pickings comprised the best tea (*jōcha*). Steaming should be done according to the fragrance of the tea leaves and stopped when the leaves were no longer bright green. Then the steamed leaves should be spread out on a mat and cooled with a fan.

Next, the processor put the leaves into a device called a *jotan*. This was essentially a charcoal brazier with paper on top, where the leaves were rolled with a slow circular movement of the hands. In the next step, the worker separated leaves by size on the paper top using a winnow. The resulting product was then dried over a low flame and put in storage jars. The same process was then repeated for the remaining young shoots. In particular, there were two innovative pieces in the brazier above which the tea leaves were crumbled. To hold the paper at the top of the brazier in place, processors employed an iron grate and iron netting. These were likely developed in Uji.

As a center where tea-processing technology was the most advanced, officials in Uji, along with others in Ōmi and Ise, named certain persons masters (*chashi*) and sent them to many places, including Shizuoka. These experts helped to spread the best practice to all regions where steeped tea was produced for export, and at fairs in Japan Uji and Shizuoka teas took top honors. It also assured that all steeped tea going for export met a high standard. It had at least one negative consequence, however, as the wide variety of different brands of tea celebrated in the Edo and early Meiji periods gradually dwindled. Moreover, during the late nineteenth and early twentieth centuries, teas of inferior grades, such as coarse steeped tea (*bancha*), gradually could no longer compete with regular or fine steeped tea, and many businesses producing exclusively these teas went bankrupt.

Still, there was a problem with the Uji method of crumbling the steamed tea leaves, called *momikiri* or *yorikiri*. It required lots of labor, was
inefficient, and the shape of the leaves in the final product was unappetizing. Then, too, different methods of processing the leaves left them in various colors and degrees of fine fragrance and eye appeal, depending on how much oxidation they underwent.

Soon tea experts (chashi) of the best regions went to work, visiting as many farmers’ villages as they could. They taught the mostly female labor force to crumple their tea properly. In Ibaraki, Saitama, Shizuoka, Kyoto, and Mie, and any place possessing ten to twenty tea roasters, these masters sent their pupils, where they were hired in a huge operation to roll tea leaves the right way. Three times every day, tea rollers crumbled three to six kilograms per roaster, while female tea pickers could do the work of about two persons. In other words, a professionalized labor force came into existence, with its own rhythmic songs to ease the hard labor of tea plucking and crumbling. In 1877, a new and better method of rolling the steamed tea leaves was developed. The most popular was rotational crumbling (kaitenmomi), developed in Shizuoka; this method is the direct ancestor of the rolling procedure used today. It did not hurt that rotating crumbling was two or three times as efficient as the Uji method. Tea processed by rotating (also called tenguri) had the added advantage of producing a more beautiful product (figure 10).

![Figure 10. Rolling tea by hand. From Sayama cha no seisan yōgu: Hōkokusho (Iruma: Iruma Museum, 2009), p. 24.](image-url)
The workforce that came into existence for plucking and rolling tea leaves was composed of true professionals, requiring as long as ten years of training. Even then, competition for jobs was keen, as several thousand chazumi fu and chamomi fu, wearing their characteristic red headbands and organized in units of about five persons, descended upon Shizuoka or Ise during harvest time. In Ise, each tea producer might employ thirty to forty female tea pickers during the season. These women sang songs in rhythm that told of their labors:

> When the tea is gone, tea pluckers go home;
> All that’s left is their baskets and hats.\(^\text{16}\)

> When the weather is good,  
> Tea pluckers with their red straps  
> Are in a great uproar!\(^\text{17}\)

> If you are going to pick tea shoots,  
> Pluck properly from the root.  
> Unskilled pluckers all run away!\(^\text{18}\)

While these workers from all sorts of places were in a village, it was an exciting time, with lots of news from outside the area. For this hard labor tea pickers were paid about eight sen, and the leaders (chashi) about 20–30 sen per day. Moreover, workers stayed in the owner’s home, allotted a bag of rice per day. They usually signed contracts at the start of the year, and even though their labor was difficult, there were often more workers than employers.

In 1905, the Ministry of Agriculture and Commerce standardized the procedure for rolling tea. It was quite an achievement, encompassing nine steps and taking 2.5 hours for one kanme of tea leaves. As a result, by 1922 the price of tea had risen by 3.3 times. Tea rollers also sang while they worked:

> Aaae! Roll! Roll! Roll!  
> Eeee! Must roll to arrange the leaves.  
> Aaaa! If you crumple them even old leaves will make tea!\(^\text{19}\)

Unfortunately, the cost of fuel, wages, food, and other essentials had increased by a whopping factor of seven to nine. Since many farm households supplied their own items such as food, most were just barely running in the black. Romantic as it might have seemed, this system could not remain economically viable.

These harsh economic realities begot the fifth trend during 1868–1925, the initial drive toward mechanization of the industry. Inventor Takabayashi
Kenzō (1832–1901) tried his hand at tea processing during the early years of Meiji and developed a tea-leaf steamer and what he called a “tea processing friction machine” (seicha massatsuki) in 1885. He took out patents on the machinery and gathered about a thousand people for a demonstration; but because the cost was high and the end product not attractive enough for consumers, his inventions failed to arouse interest. In 1898, he received a patent for a prototype for a device (sojūki) for roughly rolling the steamed tea leaves. It would eventually turn out to be a revolutionary idea, but this first machine was too small and merely did the initial crumpling. This still left the processor to use his or her hands to roll steamed leaves on top of a roaster. Even then it reduced the workload for laborers, and several farm households adopted the machine. Takabayashi died penniless without realizing the true value of his contribution.

Still, the drive toward mechanization was on. In 1896, Mochizuki Hatsutarō (1864–1915) invented a device for rough rolling, and then in 1900 a machine for crumpling more finely in a rotating style. About the same time Usui Kiichirō (1872–1950) developed his own type for fine rolling. Then, in 1915, Akiba Yasukichi (dates unknown) made a great improvement by perfecting an automatic steamer.

Soon enterprising tea producers realized that they could work these machines together as a system. The Mochizuki machines used a steamer of three to four horsepower, employing water, electric, or gasoline power. Taken together, these machines performed the initial and fine crumpling in five steps, and in one twenty-four-hour period could produce 66 kan (1 kan = 3.75 kgs) of processed tea and reduced costs by 20 percent. The cost for these machines, however, was prohibitive for most farmers, and they continued to use Takabayashi’s device for rough crumpling only. Thus, by the 1920s, methods for processing varied widely by enterprise, with small tea producers still relying on rolling by hand, while mid-sized businesses used just the device for rough crumpling, and larger producers such as those at Makinohara were more completely mechanized. Mechanization was primarily applied to fields on the flatter lands where the acreage was larger, while old methods using the hands prevailed in the mountains as before.

The advice and mentoring of experienced farmers who imparted their knowledge to other peasants was a sixth characteristic of these decades. These “old farmers” (rōnō) had likely been active throughout Japanese agrarian history; Miyazaki Yasusada, whose work on tea I discussed in chapter 3, was one such figure. In this epoch, the Japanese government sought to spread best practice around Japan. The standardization of the rolling process was just one such technique, most of which methods came
from the Kyoto-Osaka region. Tea fairs and organizations helped accomplish this purpose. In 1877, the first domestic tea fair took place, and two years later the Organization for Progress in Tea Processing (Seicha kyōshin kai) was formed. The Japanese also sent their products to the St. Louis World’s Fair in 1904 and to Portland and Seattle in 1905 and 1910, respectively.

This effort to spread best practice included the publication of various periodicals. The first such effort has already been described—An Illustrated Explanation of Tea Processing. In addition to the topics previously mentioned, this work showed farmers how to retrieve tea seeds and plant them, how to begin harvests (not before the fourth year), how to manage the soil by covering the base of the bushes with soil, how to transplant the denser plants in the autumn and spring, and how to fertilize in the spring, summer, and in some cases during the winter. An Illustrated Explanation of Tea Processing showed and represented in the simplest way, with pictures illustrating how all these tasks were to be completed, the best practices as they had been developed in Uji. Other manuals soon appeared, including New Explanations for Tea Processing (Seicha shinsetsu) in 1873 and Complete Tea Processing (Seicha ichiran) in 1876. Their advice on planting seeds, tea picking, fighting frost and insects, and processing was invaluable.

In 1879, the first meeting of the Tea Industry Symposium (Chagyō shūdan kai) was held in Yokohama. Meetings were held regularly thereafter. During the earliest of these meetings, entrepreneurs learned about the low cost of drying in the sun, a traditional method that still seemed to have a place. At the third meeting in 1883, some thirty-one famous “old farmers” were in attendance. At that time, the Tea Industry Cooperative (Chagyō kumiai) was formed, adding its own rules and pressing issues to do with both domestic and international trade. Officials from national and local governments also attended to hear lectures about planting, processing, enterprise management, sales, and exports. Meetings of these various organizations also took place in 1915 when mechanization was the topic, and in 1921 when planting, mechanization, and storage were on the agenda. Altogether, these publications and organizations helped the tea industry prepare for the lean times that were manifest after the export boom of World War I.

The seventh and final characteristic was a modest effort by the Japanese to enter the world market for black teas. Remember that Europe’s initial experience with tea came in 1610 when the Tokugawa shogunate sent some green tea to the Netherlands. Since then, giant plantations producing black teas in India, Sri Lanka, and Indonesia had flooded the world market and greatly influenced European tastes. In 1874, Meiji oligarch
Okubo Toshimichi (1830–1878) ordered farmers to begin producing black tea on the Chinese model. The Japanese came up with plans for producing black tea, but when the United States population turned out to prefer Japanese green teas, the plan was dropped. The Japanese learned from their overview of world tea consumption, however, as Tada Motokichi (1829–1896) continued to experiment with black teas, and eventually they imported seeds from Assam in India, better suited to black teas because they had more tannin and emitted a fuller fragrance. Using the seeds from Assam and guidance from abroad, Japanese tea producers sent between fifty and two hundred tons of black tea abroad during the Meiji years.

During the first stage of Japan’s modern tea production, cultivation and processing comprised a unified system. Primarily driven by the world export demand for Japanese tea, cultivators learned to use more and better fertilizers, tend their fields more productively, chase away those nagging insects, and prune to improve growth of the plant. Entrepreneurs and workers made numerous advances in tea plucking and crumpling, requiring the employment of thousands of mostly female field hands. Tea fairs, organizations, and publications spread the best practices as soon as they were available. Advances had truly made Japanese green tea competitive on the world market, but future changes, especially as anticipated by the first wave of mechanization, were to have an even more profound effect.


Until 1925, at least half the Japanese tea produced for market went for export to the United States or elsewhere. Therefore, domestic commercial demand for tea began as a small but ever-expanding portion of the overall market for tea. There were, however, innumerable producers of tea leaves or the actual beverage; as of 1930, 75 percent of the Japanese population was rural, and many simply grew and processed their own tea for home consumption (jikayô cha). Viewed as a whole, therefore, Japan’s tea industry was composed of innumerable small organizations producing for many purposes—everything from small amounts for home consumption to large quantities for export abroad. This market structure was in large part an inheritance from the Edo period and stood in strong contrast to that of India or Sri Lanka, where a few large plantations produced all the tea.
To elaborate, the market at Shizuoka, a major tea-producing area, shows just how complex a local structure could become. Until about 1900, Japanese shippers (hamaokuri) in Shizuoka collected, sold, and transported most raw tea directly to Yokohama. From there foreign agents often reprocessed the product for the journey to foreign lands. In the less likely event that the raw tea was to be sold domestically, rural tea producers in Shizuoka went through a middleman (cha nakagai shō), who then collected and shipped the tea to market in the prefecture.

Around the turn of the century, however, Japanese producers and traders decided to take the export tea trade away from foreigners and developed tea-reprocessing plants in Shizuoka. From 1900 until 1925, market structure became even more intricate. Producers of raw tea typically went through one Japanese broker for reprocessing and then a second for the finished tea, who worked with yet a third wholesaler (ton’ya) for sale abroad or within Japan. All of this activity took place in Shizuoka. This complex industrial marketing structure would remain through 1931.

As the export market declined steadily, producers and wholesalers looked for methods to increase domestic sales. Beginning in the 1890s, tea firms in Uji turned to a new marketing strategy: sales by mail order. It proved to be a good idea, as the number of Uji tea firms trading in this way grew from ten in 1914 to thirty-nine by 1925. Mail-order sales of green tea in Kyoto prefecture (which includes Uji) amounted to 1.6 million yen in 1919, or about 36 percent of all finished tea sales from the prefecture. When in 1924 it was asserted that green tea contained vitamin C, industry firms proclaimed that “this discovery amazed the middle class!” A leading company in Uji wrote: “From 1916, the domestic consumption of Uji green tea grew at a dramatic rate because the practice of enjoying the drinking of tea had spread among ordinary people, and the population had also increased.”

Because most Japanese tea was either exported or grown by consumers, newspaper advertisements for the domestic market were rare and not very exciting. They were all black-and-white and frequently merely mentioned the name of the company where the tea could be bought. The first newspaper ad appeared in 1888 for gyokuro and sencha from Uji and was written in non-colloquial Japanese. Beginning in 1907, ads were published with somewhat greater frequency; Uji teas predominated. In 1919, a newspaper advertisement broke new ground by mentioning the advantages of drinking tea—that it was good for heart disease and regular excretion.

The most arresting advertisement appeared in 1922 and showed a serious man holding a bottle of “tea essence” (chasei). It stated: “Wake up!
To the modern power! . . . A daily drink for the improvement of modern life!” In small characters, the ad pressed the advantages of this tea marketed through Tokyo; it was touted as “convenient, economical, delicious, and healthful” (figure 11). In 1927, after the discovery that Japanese green tea contained vitamin C, an advertisement notified readers of that point too. All in all, however, tea advertisements were rare compared to those for beer and tobacco—why advertise if the tea product was already being widely consumed?

Despite the relatively small commercial tea market at home, there can be little doubt that by 1925 tea of some variety was consumed in virtually every household in Japan. In late 1941, researchers from Seijō University in Tokyo conducted surveys for sample households all over the islands from Hokkaido to Okinawa. They asked about one hundred questions concerning diet in Japan; question 91 asked about the consumption of tea on a regular basis. Of the fifty-eight households in cities, villages, and towns, fifty-four (over 93 percent) answered that they consumed tea on many occasions, usually regularly. The only exceptions were households in one village each in Fukushima, Shimane, Okayama, and Nagasaki prefectures. (The village for Nagasaki was located on the isolated island of Tsushima.) In early 1942, however, when the same university conducted more surveys in about thirty-three villages stretching from Iwate in northern Japan to Kagoshima in the south, only eighteen (54.5 percent) answered with a similar positive answer. It should be noted, though, that not every household responded to the query. 28

Comments about the survey question were often laconic, but some households gave details about their tea consumption. Most who specified a brand of tea indicated that they drank coarse steeped tea (bancha), although half a dozen noted that they preferred sencha. A few even imbibed black tea. One household consumed tea-rice gruel (chagayu), while those in Okinawa drank “Chinese tea.” Most of the households that revealed where they obtained their tea stated that it was home-grown (jikayō), although, again, half a dozen responded that they bought their tea. Both Uji and Ureshino teas were singled out by name. Respondents generally said that they drank tea “all the time” or “three times a day,” but at least one household said that they could afford tea only for special occasions or when guests visited. One householder said that “all the women of the village gather at one house to drink tea,” while another stated that it was the drink of preference before going to work in the morning. In one village, all the “old people” drank tea. Only one household sold tea, but several noted that “tea is a necessity.” Tea was plainly deeply intertwined with the customs of Japanese (especially rural) society.
Competition awaited, however. Japanese with ties to the Dutch East India Company first tried coffee during the Edo period, but found it bitter and did not like adding milk to it. After the Meiji Restoration in the late nineteenth century, however, coffee was seriously imported into Japan, and by 1888 an enterprising fellow had founded Japan’s first “coffee house.” By 1901, about 145 “Western-style” cafés and eating places dotted Tokyo; by 1923 Japanese tea shops had been replaced by coffeehouses in the fashionable Ginza section of the capital. Japanese workers labored in Brazil, another source for Japan’s coffee culture. In one Tokyo shop, there were 70 thousand coffee customers per month, while Osaka could manage only 52 thousand. To be sure, in 1925 coffee was not yet anything like a competitor for tea, but coffee’s association with freedom from social hierarchy was a big attraction in the anomie of the big city. Instead of social gatherings, coffee became associated with the solitary individual, and Euro-American culture like jazz, eroticism, and avant-garde art. Two drinks could not have been any different or appealed in more unique ways to their various clienteles.

Literature of the period from 1868 to 1925 reinforced the strong association between Japanese tea and sociability and hospitality. In the works of three famous authors, Natsume Soseki, Tanizaki Jūichirō, and Nagai Kafū, tea almost always accompanied the initiation of social interaction. For example, in Natsume Soseki’s And Then, there was an introductory scene with two men (Daisuke and Hiraoka) and an old woman. As the two men converged for conversation: “The old woman finally appeared with the tea, putting a tray on the table and apologizing all the while that it had taken so long because she had put cold water in the kettle.” Tea also appeared occasionally when Daisuke tried to court Michiyo, a major story line. Tea was also a drink tied to contemplation. In Soseki’s The Wayfarer, the protagonist “sips tea” while sitting with his mother, but it was “black tea.”

Conversely, when something went wrong in a story, the breach was almost always reflected in the breakdown of tea etiquette. For example, Natsume Soseki also wrote the humorous Botchan, about a young man who journeyed to a rural school to become a schoolteacher. The locals mistreat him at every turn. When the main character arrives at his lodging, his landlord offers to make him “a nice cup of tea.” The trouble is that the landlord is going to use, not his own tea, but some of his tenant’s! Japanese writers of this time skillfully used the serving of tea to set the mood for each scene.

Tea served another function in the tales of Tanizaki and Nagai: it nostalgically reminded the reader of traditional Japanese culture. In Tanizaki’s
Some Prefer Nettles, the story is set in Tokyo during the 1920s. The main character Kaname is a typical Japanese “anti-hero” going through a divorce as he struggles to define himself as modern and Euro-American or traditional Japanese. He is attracted to a Japanese geisha named O-hisa, and when she appears, she is often associated with tea: “She brought in tea and towels, almost noiselessly, and disappeared.” Of course, O-hisa works from a “teahouse.” In Nagai Kafū’s Geisha in Rivalry, the geisha Komayo and Kikuchiyo both toil and live at teahouses. In this case, the authors evoke a time gone by simply through the mechanism of tea or the old-fashioned “teahouse.” In sum, even as tea production modernized, the appeal of the drink was tethered in a subtle way to the past.

THE ROAD TO A SCIENTIFIC, MECHANIZED TEA INDUSTRY, 1925–1980

During the late nineteenth and early twentieth centuries, Japan’s tea industry had made great strides toward modern production, including the standardization of rolling methods and first steps toward mechanization. The booming export trade had stimulated most of these changes. After 1925, however, tea gradually decreased as a major export item for the producers of Japan and instead became a beverage for home consumption. This transition encouraged those concerned with tea and Japan’s economy to think big. The advent of the Great Depression and the disaster of World War II added to the stimulus for a thorough transformation. While Japanese cultivators and entrepreneurs continued to make improvements in farming methods, the real story of these decades is the application of botanical principles to and full-on mechanization of tea production.

Changes in the management of tea fields continued to characterize the era from 1925 through 1980. One major change was the movement from planting with seeds to using seedlings. Even early on, tea farmers knew that producing seedlings by splicing (tsugiki), rooting (nezashi), layering (toriki), and cutting (sashiki) was possible. Taking a somewhat mature young branch, attaching one to three layers of leaves to a buried branch of a live bush in a well-drained plot with a temperature of about 20–25 degrees centigrade, and allowing the sun to shine on this project for a while, led to a rate of almost 100 percent attachment of the leaves. This process (layering) was utilized during the late 1920s, but proved less than perfect because the new shoots and roots did not do so well and often died.

From 1930 through 1955, farmers preferred to use layering rather than cutting to increase the numbers of their tea bushes. As already described, in this method a stem from the parent plant was cut and attached to a
live branch, which was then buried with the cut branch above ground. Cultivators found that after two or three years the young seedlings could be layered once again. After about six months to one year, the new seedlings had grown plenty of roots, were quite large, and could then be used to plant new fields. In using this method, however, even taking twenty seedlings from one tea bush, for a field of ten ares that had 1,500 bushes the cultivator reaped only 30,000 seedlings, and one with 2,000 bushes only 40,000 seedlings. Moreover, there could be no harvest from the field where the seedlings had been taken and were growing like babies attached to the mother plant.

Soon farmers found that cutting was the answer. In other words, a branch was cut from the bush, planted in the earth, and the new seedling soon had roots. From the same sized field of ten ares, tea producers found that they could harvest 300,000 to 400,000 seedlings—ten times the amount acquired by layering. Under this method, once the cut seedlings had formed roots, fertilizer was applied. Seedlings cut in June had grown to twenty to thirty centimeters by the autumn and practically none died even three years into the process. Once they were planted in March, by the next November their roots reached a depth of sixty to seventy centimeters. Then, in 1960, farmers began placing black plastic and cloths over the growing saplings to produce even better results. The use of these seedlings gathered by cutting from the mother bush was a major advance over layering, and especially planting with seeds.

Another trend was the application of more and more fertilizer. Per tan, the new average was 26 kilograms of nitrogen fertilizers, 11 of phosphates, and 11–15 of potash in 1933. Organic fertilizers were applied as well. Fertilizer was hard to come by during World War II, but soon after the war the amount of fertilizer increased to double the prewar amount. Essentially farmers received an increase in their harvests of 200 kilograms for this investment. The timing of fertilizing also changed from early fall and late winter during the Meiji era to mid-September and early March during later eras. Because farmers used so much fertilizer, it became the chief cost of production for them.

Prevention of infestations by insects and blight also improved through the use of chemicals, traditional, and viral agents to get rid of pests. During the late 1930s, chemical agents became much more prevalent, especially soap liquids and pine resins. Lists were made of the major types of blights and insects infesting the tea plant. In 1958, a major paper on how different types of pests attacked different strains of tea was published. DDT came into use after World War II, despite the eventual realization of its threat to humans and the environment. Once these threats were investigated and
known, however, farmers increasingly turned away from it and other chemicals. At the same time, blights and insects developed resistance to chemical agents. Another problem was that the cost of pesticides increased until it represented 8.7 percent of the total outlays of farmers. In other words, despite their problems, chemical agents still were used with great frequency during the early and middle decades after World War II.

The incremental changes in farm management represented continuity with the time before 1925. As noted earlier, however, the period from 1925 to 1980 encompassed a much larger transformation. One of the biggest developments was botanical—namely, the selection and collection of strains of the tea plant, initially from around Japan and eventually from around the world. Sugiyama Hikosaburō (1857–1941) was a major figure in the movement, as he collected teas from around Japan as faraway as Tanegashima. During the late 1880s and 1890s, he collected seeds from about two hundred to three hundred tea bushes, and then, beginning in 1914, attempted to propagate them in a small garden near his house by controlled pollination and selection. In 1920, he moved his research facilities to Shizuoka and the Ministry of Agriculture and Forestry (Nōrinshō chagyō shiken jō) took over his labors. Sugiyama was praised for his efforts at trying to improve the Japanese tea plant by breeding teas for early, middle, and late ripening seasons. Sugiyama also broke new ground by trying his hand at rooting, layering, splicing, and using cuttings, but his early experiments were failures.

Another important figure was Ōbayashi Yūya (1866–1937), who graduated from the School of Agriculture at Tokyo University after studying botany. Ōbayashi came at his botanical practices from the perspective of commerce and industry. He eventually traveled to India, China, and North America to observe the conditions under which tea was produced and consumed in various areas of the world. Ōbayashi became the first head of the government’s Experimental Laboratory in 1896, but he was roundly critical of Sugiyama for trying to improve upon the native strains by separating out early-, middle-, and late-ripening teas. For his part, Ōbayashi incurred Sugiyama’s wrath by advocating the interbreeding of all the various types of tea in Japan to harmonize their distinctive flavors. Ōbayashi clearly had an eye to reviving the Japanese export market, where he hoped that a single Japanese green tea would become the leader throughout the world.

It was only a matter of time before more Japanese botanists turned their attention to plant genetics. In 1932, Takezaki Yoshinori (1882–1975) put his knowledge about plant breeding to good use, differing in his opinions from both Sugiyama and Ōbayashi. Takezaki advocated the
development of multiple tea strains that were adapted to different regions of Japan. He argued that breeding should first be conducted to separate native Japanese teas into different strains, so that the number of varieties could be increased. Then they could be blended in processing to produce a single beverage for mass consumption. For Takezaki, tea could be both a specialized beverage for niche markets in Japan and an object of mass consumption abroad. During the next decades, a greater number of strains was produced, and layering became the preferred method of carrying this out.

In the end, however, the tea industry did not really follow the fundamental vision of any one of these men, Sugiyama, Ōbayashi, or Takezaki. They all had in mind the giant tea plantations of India, Sri Lanka, and Indonesia and hoped that Japanese tea producers would produce a strain or strains of green tea to replicate that mass production method in Japan. For his part, Sugiyama advocated breeding early-, middle-, and late-ripening tea plants with soft saplings that could be harvested over a longer period of time and taste better for a mass market. Ōbayashi wanted to interbreed regional teas, utilizing their special characteristics to create a single tea variety to increase consumption. Takezaki argued for a little production from many strains and huge production for daily consumption, corresponding to consumers’ tastes. For all three, the model was the large plantation such as those in India and Sri Lanka. Instead, the Japanese tea industry ultimately adopted the perspective that each Japanese raw tea leaf had a special flavor and fragrance attractive to Japanese consumers, so that producers united the production and the processing of each strain of raw tea into a single system, and therefore tended toward small factories, with even more refinements during sales. India had huge enterprises, while Japan’s remained small.

The Japanese continued with native plants and tended toward the creation of numerous strains from them. At the Tea Processing Experimental Station under the Ministry of Agriculture and Commerce (Nōshōmushō seicha shiken sho), various strains were teased out. Three different brands were chosen from Uji alone, used primarily for export. Another came from Nara, given its own name in 1925. Still another came from Miyazaki and was used for stir-roasted teas. Around 1930, a mixture of teas from Kagoshima and Mie prefectures was successfully blended. There were also teas from Saitama, from Kyoto (used exclusively for powdered and “jeweled dew” teas), and so on. In any case, the Japanese tea industry chose the road of small centers of production and a wide variety of individual tea brands. Eventually, by the way, Sugiyama succeeded in having four strains registered with the government as early- or late-ripening teas.
Another reason for all this botanical work was concern for the health of tea bushes in Japan. Between 1936 and 1942, the government collected 150,000 strains of green tea and another 3,700 of black tea from around the world. The object of collecting all these strains during these years was to produce the healthiest tea plants possible. World War II put a stop to this effort at collection, but the efforts of men like Sugiyama were far ahead of their times, as they took cuttings from one tea bush and spliced them with another. In 1952, Japanese scientists used cuttings from Taiwanese plants to promote a healthier plant; plants from India and Sri Lanka were also made available. During the 1950s, about 30 percent of new plantings were done to improve the health of the tea bush; by the 1970s, all new planting had achieved this purpose. For these practices, cutting and splicing came into widespread use—gone were the days of mixing seeds.

By 1980, 55,311 hectares were planted in tea bushes, and 26,800 hectares, or 48 percent, were cropped in one newly teased-out strain or another. In snowy areas or those regions formed into slopes near mountains, the older native mixed strain of Japanese tea still held sway. In Shizuoka, however, the new individual strains made up about 40 percent, in Kagoshima 70 percent, in Mie 46 percent, and in Saitama 22 percent. One particular strain, called *yabukita* and developed by Sugiyama for its convenient harvest time, comprised 82 percent of tea fields under a newly developed strain. In this way, botanical work consumed the industry and comprised one of the essential characteristics of the Japanese green-tea industry between 1925 and 1980.36

The botanical work had a spin-off: it led to the renewed effort to develop a black-tea industry. Japan exported relatively small amounts of black tea during the Meiji period, ranging from 44 to 32 tons, with the most being 156 tons during the early 1890s. After decreasing during the 1920s, these amounts reached 3,075 tons between 1936 and 1940. After World War II, in 1955 Japan produced as much as 8,225 tons. All during these decades, however, Japan also imported black tea from Great Britain. It was becoming clear that Japan’s native strains were unsuited for black tea.

Beginning in 1964, breeding, planting, and processing of black tea proceeded under the watchful eyes of scientists. The technology and
standard methodology became established. A plan was hatched in 1959 to devote 10,000 hectares to the production of black teas. Most of the effort focused on southern Kyushu. Still, Shizuoka, with 7,089 tons and older methods, was the leader in production at this time. Then, in 1960, imports barriers were removed and gradually imported black teas increased and domestic production fell off. In 1969, the Ministry of Agriculture and Forestry succeeded in crossbreeding Chinese and native strains, and the tea seems to have had much promise as a black tea, but it was really too little too late. By 1972, Japan produced no more black tea, and within eight years the Japanese were importing 15,000 tons of black tea annually.\(^{37}\)

Along with botanical work, engineers and entrepreneurs succeeded in completely mechanizing harvesting and processing. Concerning plucking, previously it was noted that tea scissors had been in use, but they had many problems, such as unevenness in the harvest. Then, during the 1950s, exports to the United States and Africa dropped off; the price of tea reached ten yen per kilogram. The tea industry was even called a “sunset industry.” Moreover, labor costs continued to rise—some way had to be found to eliminate the costs of all those tea pickers (chazumi fu). In 1950 in Nara, an electric picker was developed. By 1956, Katsumi Shinsaku (dates unknown) of Shizuoka invented a motorized rotating hand-held tea picker. It weighed about six to twelve kilograms and cost 45,000 to 65,000 yen. Yet it could pluck fifty to seventy kilograms per hour, about twice the amount that a worker with scissors could pick. It took some time for these machines to come into wide usage during 1965–1970. In 1965, a further improvement was made as Matsumoto Machines developed a mower operated by two persons. It soon spread to larger tea fields on relatively flat or somewhat sloping land. A smaller version was eventually developed for more mountainous regions, and later there was a riding version as well. In one eight-hour day, these later machines could harvest .6 to .8 hectare, six to eight times as much as the hand-held types. At the same time, however, it is well to remember that these machines could not be adapted to every topography, business structure, or enterprise size. In mountainous Kagoshima and Miyazaki prefectures a total of only 1,120 hectares used this machinery. Moreover, the machinery did not always produce the best leaves for niche markets such as powdered or “jeweled dew” teas. These machines did help to save Japan’s tea industry from the problem of high costs during the immediate postwar period, though.

Farmers did not simply mechanize the harvesting of tea—soon processing evinced a similar devotion to machines.\(^{38}\) The modern steamer with netting and adjustable temperature was developed during the late 1920s and early 1930s and essentially served most farmers during this era.
After steaming, the leaves were placed in a rough rolling machine (*sojūki*), which, as we have seen, was invented around 1910 (figure 12). From this machine, the raw leaves went to a crumpling machine where the action was rotating, and this machine (*jūnenki*) was perfected around 1915 or so. The difficult process of rolling these raw leaves was still not finished even at this point, and so the product was moved along to a rolling machine that also dried the raw leaves (*chūjūki*; *saikanki*). This machine was also invented in its modern form around 1910. At last, the leaves, now crumpled into a mass, went on to a fine-rolling machine (*seijūki*), also completed in its current form around the same time.

By 1922, tea producers in Shizuoka possessed 14,667 rough-crumpling machines, 3,867 rotating crumpling machines, and 3,709 fine crumpling contraptions. Rough rolling was about 50 percent mechanized, showing that the process was partially mechanized in that proportion of households. In other words, about half the tea producers still relied on rolling the steamed leaves by hand. One factory could produce 450 kilograms of tea and could handle about 52 ares. Even in advanced Shizuoka, there were many households still doing much of the processing for steeped tea by hand. In 1927, the number of tea producers using power was 5,223 households.

Mechanization did not really take off until after World War II in the 1950s, however. Stir-roasted tea was a perfect candidate for machine use, as the process was likened to steeped tea. By the late 1940s after the war,
inventors developed a mechanization process for stir-roasted tea in which the leaves were first mechanically stir-roasted, then underwent rotating crumbling, then drying, and finally stir-roasting in two steps. In one day, this mechanized process could handle 3,750 kilograms of tea. Still, in Kyushu in 1968, the average was more like 300 to 700 kilograms per day. In that same year in Kyushu, a better machine that could produce 4,800 kilograms per day was developed. Moreover, conveyor belts moved the raw leaves along from one machine to another.

Even the production of powdered tea became mechanized in 1948. Because powdered tea belonged to a niche market and high quality was a major concern, the leaves were steamed in a special steamer and then went through three stages of drying before being put in jars. To produce powdered tea, the leaves were then cut, separated out, and ground—all by machine. Yet, as with all types of green tea, small producers still preferred to do the work by hand, grinding powdered tea on a stone grinder, as in the 1300s.

In 1927 in Shizuoka, 10 percent of the tea producers did the rolling of their tea leaves by hand, 21 percent were half-mechanized, and 69 percent were more fully mechanized. This state of affairs produced households that simply grew the tea and harvested it and then sold it to some other larger producer who could process it with machines. At the same time, many producers wanted to process more than they cultivated and were buyers. Specialized sellers of tea also appeared. In any case, during the prewar period, tea processing by machine was not very efficient. One bottleneck was the rough-rolling machine, which could take only about fifteen kilograms or so of raw leaves.

After World War II, however, individual tea fields expanded and the amount of tea increased greatly. These changes led to demand for greater and more efficient mechanization during the 1950s. Between 1955 and 1960, machines were invented that supplied raw leaves to steamers and automatically dried them. Fuel switched from coal to oil. Between 1960 and 1963, more new machines were developed, including one to cool the steamed leaves, an automatic fine-crumpling machine, and a rough-crumpling machine run by propane gas. Air currents, conveyor belts, and vibrating machines connected one processor to the next. These new methods replaced the older method of moving the processed product along by hand using a winnowing fan. All these developments made the production of steeped leaf tea (sencha) much more efficient.

The crucial breakthrough, however, came in 1964 when an improved rough-rolling machine (sojūki) was invented that could process 35 to 50 kilograms. It moved raw, steamed leaves from a rear board using warm
air currents and was a great improvement over machines that could handle only 5 to 10 kilograms at a time. This invention opened the way for larger machines all the way down the processing system, from rough crumpling to rotating crumbling to fine rolling of the raw tea. At one time, tea producers could put in 35 kilograms, and sometimes 50, in each of two rough rollers and form lines of machines on the factory floor.

By 1967, entrepreneurs had a system for large-scale machines in relatively big fields, such as the sloping lands of Shizuoka and the Kyoto-Osaka region. In 1968, small, motorized tea-picking machines could pluck 1.5 hectare per machine, and then a family of three could handle the work. Processing was carried out with several families using one factory with the outsized machines, and could easily handle twenty hectares in plenty of time. In 1968, inventors also perfected a rough crumbler that did up to 120 kilograms. Soon other processing machines for crumbling the raw leaves came into existence, and factories adopted the new machinery, utilizing three or four lines of the giants. This new technology spread throughout the 1960s and early 1970s.

In fact, rough rollers became so proficient that it was necessary to have trucks haul the picked leaves over some distances, just so long as the tea did not go bad. Here the rule was “pluck and process” in the same day. The adoption of large machines also still left plenty of room for crumbling by hand. Furthermore, sometimes drying was too fast and the flavor and fragrance became bitter. Gradually, though, entrepreneurs learned to adjust the temperature of the blowers on the rough-crumpling machines and the quality of tea improved.

Finally, during 1955–1965, inventors perfected a system by which all these processing machines, from the steamer to the fine-crumbling contraption, could be connected. In the late 1960s, tea processed using this system went on sale. In an hour, tea producers could process 200 to 300 kilograms of raw tea. Yet problems also arose with quality, and so this revolution was not widespread by 1980. Some pointed to the potential of computers for controlling advanced mechanization.

The nub of the issue was the question of what was most economical. High machine efficiency did not necessarily mean greater economical value. To elaborate, the processing of tea was unlike other manufacturing systems because leaves varied in color, shape, fragrance, and water content. These variations required human processors to continue to be involved in the crumpling of the leaves as a check. Perhaps computers could be developed with programs to account for this, but as of 1980 this was not yet clear.

The era from 1925 through 1980 had witnessed the development of a second unified system of production for Japanese tea. Incremental changes
in bush reproduction, fertilizer application, and insecticide usage still characterized farming, but concentration on plant genetics had led to the teasing out of multiple strains and the creation of an industry with innumerable small enterprises. An attempt was even made once again to produce black tea, but failed in the face of stronger competition. Most of all, tea production underwent much more mechanization than ever before, from the use of motorized tea mowers to the introduction of machines to handle every facet of tea processing. Changes in consumption patterns soon meant that quality became uppermost in producers’ minds.

TEA CONSUMPTION AND MARKETING, 1925–1980: THE DIETARY TRANSFORMATION

The half-century under consideration in this section encompasses what is known as the beginning of Japan’s dietary transformation. To explain further, this dietary or nutritional transition refers to a fundamental shift in what people around the world were eating and drinking; during the twentieth and early twenty-first centuries, as most of the world’s population moved from being overwhelmingly rural with little disposable income to mostly urban and more affluent, the diet of men and women switched from starchy carbohydrate staples to high amounts of animal protein. Depending on how one chooses to define it, one could assert that the dietary transformation comprised a more advanced stage in the evolution of consumer society, which, as I argued in chapter 3, began in Japan in the early nineteenth century.

The era 1925–1980 in Japan sits almost perfectly astride this nutritional transformation. Before 1960, more than half Japan’s population was rural and adhered to the traditional diet; by 1980 the nutritional transformation had begun, more than half the population was urban, and Japan’s economy was the wonder of the world, with growth rates in excess of 10 percent per annum. By the early 1980s, many affluent consumers had become more discriminating, demanding a richer and more sophisticated diet.

For Japanese tea, the decade of the 1960s was the critical time, when exports dropped drastically and tea had to compete with coffee and other drinks for the newly enriched consumer in Japan and around the world. Most of the production changes described in the preceding section—genetic experimentation, more intensive field management, and the devotion to mechanization—took place in that context. In other words, Japanese tea producers faced a growing crisis by the 1960s, as exports continued to fall and attempts to process black teas failed. As noted in the preceding section, the Japanese government even went so far as to think of tea as a “sunset industry” shortly after World War II.
Consider first the marketing and consumption of tea before 1960, in many ways an extension of trends described previously. Until the imposition of wartime economic controls after 1931, the market was much as I characterized it earlier for Shizuoka, with layers of producers, brokers, middlemen, wholesalers, and retailers. Gradually, though, tea producers came to embrace (1) either those who produced or bought and processed tea for themselves and (2) those who sold tea leaves on a large scale on the market. Increasingly, these producers, in Shizuoka and elsewhere, took their tea directly to sell without going through brokers and the like. When wartime controls were imposed, tea farmers’ organizations were linked directly to nearby tea merchants, and local markets all over Japan flourished. This situation obtained during the American occupation (1945–1952), and its aftermath too.41

In the years leading up to World War II, newspaper advertisements for tea were also similar to those of the 1920s—black-and-white, simple, and relatively rare. In one ad for 1942, Meiji Tea boasted of its “elegant fragrance and appealing color,” but that was exceptional.42 In that same year, however, Aozora Tea glorified itself as “the tea that makes the Japanese spirit” (Yamato kokoro), creating a nationalistic rationale for its beverage.43 Recall that, as of 1941, most Japanese consumers were rural folk who cultivated tea (usually the coarse steeped brand) for home use.

During World War II and its aftermath, tea appears to have been one product that was not subject to rationing, although it seems to have been hard to come by. In Leaves from an Autumn of Emergencies, an anthology of diary entries from eight ordinary Japanese during the war, tea was mentioned as many as eight times by the same number of authors. Even as late as 1944, one diarist in Kyoto wrote that he had “poured a cup of bancha and ate half my rice ball.”44 One package of steeped tea (sencha) in Kyoto in late 1944 cost five sen, a quarter the price of bean paste (miso) and one-sixty-fifth that of a bag of rice. During the last year of the war, one recipe recommended serving used tea leaves with a little sugar, soy sauce, and dried bonito flakes both as a side dish and a drink.45 Tea remained available right up until Japan’s surrender in August 1945.46

As noted, the 1960s was the pivotal decade for tea in Japan’s dietary transformation. For one thing, tea faced its first truly serious competition from coffee. Ironically, a Japanese scientist living in Chicago invented instant coffee, and by the 1950s the beverage was being mass-produced in the United States. By the 1960s, the drink was popular in Japan, where it was imbibed at home and in offices for the first time. By 1970, freeze-dried coffee was available. By 1975, the residents of Japan were drinking more coffee than tea by weight and Japan became the world’s third largest...
importer of coffee behind the United States and Germany. Around 1980, there were 154,680 cafés with 575,768 employees. Coffee culture assumed a major role in Japan’s dietary and social matrix.

To combat fears of decline and entice consumers to drink more tea, in 1961 thirty-three tea retailers announced the formation of the All-Japan Tea Merchants’ Club (ZenNihon chashō kurabu) in Japan Economic Newspaper (Nihon keizai shinbun). In the announcement, the group stated that at present their best seller was small amounts of tea (100 grams) for fifty yen; the club argued that at that rate most would barely survive. They aimed to sell the same amount for double the price within five years.

To carry out this dramatic change, the club wrote that merchants needed to communicate to consumers “how up-market and high quality” their teas were. These teas were from the first plucking, and second and third teas were to be priced on a sliding scale. In the words of the club’s chair, Ikeda Shūji, consumers were asking for teas that had a “fine fragrance” and “good taste.” High-end consumers wanted something better than coarse steeped tea for which they paid a little; they wanted a more luxurious beverage (shikōhin) appealing to young and old alike, a drink that would be consumed in Japanese households day and night.

In Japan’s rapidly growing economy of the 1960s and 1970s, the strategy seemed to have had a positive effect. The Tea Merchants’ Club grew to forty-six members, ranging from Aomori to Kumamoto, by the early 1980s. A sample of the membership shows how tea retailers tried to meet the tastes of the urban consumer with money to spend and delicious alternatives such as coffee to consider. Takamori meicha dō, located in Aomori prefecture in the north, was founded in 1901 as a tea shop (cha mise) and incorporated in 1955. Between 1956 and 1971, it opened four branches and adopted three principles: (1) strive to please the customer; (2) strive to do business with the best information and according to contemporary trends; and (3) develop a spirit for pleasing local customers.

Machidaen honten in Sayama in Saitama prefecture was started in 1898 and at first sold its tea in northern Honshu. Eventually, sales centered on Tokyo, Kanagawa, Nagano, and Gunma prefectures. Incorporated in 1954, it opened two retail shops and a wholesale division. It built a processing factory, a reprocessing factory, cold-storage facilities, and another store. The company owned three hectares of tea fields from which it gathered tea leaves. Later, Machidaen diversified by sponsoring a driving school and store for field athletics. The company’s motto was Drinking Tea Is Based on Trust.

Ippodō Tea Shop started in Kyoto in 1721. Originally from Shiga, its owners called it the Ōmi ya and sold Uji tea. By 1964, it was a stock
company with three million yen in capital, increasing to ten million yen by 1970. The company president was a fifth-generation descendant of the founder. Sales policy included these rules: (1) adhere to set prices; (2) place importance on the product and sell according to the customer’s preference; (3) because workers who come and go are important customers, treat them right and make them happy.

Haraguchien in Fukuoka was founded in 1936, beginning from a store in front of Fukuoka Station. It became a joint stock company in 1950 and opened a new store in 1966, along with a reprocessing factory. In 1976, it opened another store in Yaotome and established a large storage facility on one thousand tsubo of land. In 1977 it became a joint-stock company and increased the size of its main headquarters too. Selling mainly sencha and gyokuro, Haraguchien had laid stress on becoming the chief collection point for raw tea in all of Kyushu, as well as being a major retailer. Its motto was “Contributing to local society through tea.”

The reader may well ask: How could coffee make such inroads with Japanese customers while retailers of green tea of all types continued to see their market grow? Remember that, until 1980, production of Japanese tea had grown to 100,000 tons with a drastically shrinking export market. The answers must be found in the continuing growth of Japan’s population, especially in the cities, and the rapid per capita rise of incomes. In other words, for both coffee and tea there was a “win-win” set of circumstances in which both could grow. This confluence of factors, however, would not continue long after 1980.

In addition, beginning in the 1960s, tea companies began to advertise more effectively, especially on radio and television. For instance, in 1968 Myōkōen, one of the forty-six companies in the Tea Merchants’ Club, won a silver medal for its TV ad broadcasting in central western Japan.50 “A man said, ‘I went to see Europe and America and the thing that moved me most . . .’ A woman replied, ‘I can drink Japanese tea here.’ Myōkōen Tea!” In 1980, Haraguchien’s TV ad showing rolling tea fields, a female tea plucker, and then a cup of tea won an excellence prize (yūsaku shō). The voice-over said, “The fragrance of Yame, won’t you try it?” And then, “Just, won’t you try drinking some tea? Haraguchien.” In the final scene, over a cup of steaming tea appeared the words “O! To be Japanese!”51

Consumption of Japanese tea expanded markedly from 1960 to 1980, as tea producers and merchants met the challenge they faced from the decline of the export market and the beginning of stiff competition from coffee and other nonalcoholic beverages. A second survey of Japanese diet conducted during the 1980s confirms the unshakable hold that tea had on the populace. Carried out for all forty-seven Japanese prefectures from
Hokkaido to Okinawa, the survey revealed that tea and food dishes prepared with tea were intimate parts of the food culture in thirty-eight of the forty-seven prefectures; as might be surmised, the only areas left out of this picture were in northern Japan, where it was too cold to grow tea and the tradition of tea drinking was not nearly as old. Moreover, a total of 109 locales, both urban and rural, within the thirty-eight prefectures had traditional dishes that included green tea.

The polymorphous state of tea dishes was truly astounding. Of course, drinking tea was central, but depending upon the region the tea might be powdered, steeped, stir-roasted, or mixed with beans (mamecha), potatoes (imocha), or something else. In the Kyoto-Osaka region and westward, people ate tea gruel (chagayu; chagai). Consumers in other regions liked tea poured over their rice (chahan) or tea with pickles (chazuke). There were lots of ceremonial uses for tea too, beginning with New Year’s Day’s fukucha. The long list of tea dishes and the many varieties of tea stand in contrast to the survey of 1941, when most tea was homegrown, coarse steeped tea.

As seen in the survey and the appeal to “Japaneseness” made in the TV ads, in 1980 tea occupied much the same cultural niche that it had fifty or a hundred years earlier. In Japanese literature and film of the era, the chief role of tea was to represent daily sociability and hospitality, as it had earlier. In Tanizaki’s The Makioka Sisters, the story of an Osaka family including four daughters, for example, tea frequently introduces a scene where there is interaction among the characters. Speaking of a “young wife” living near to her, the character Sachiko remarks that “[n]ot a minute later she was back with tea for me. . . . And how would you like a cup of tea? she said.” In Kawabata’s The Sound of the Mountain, the main character is an old man tending to family responsibilities in postwar Japan. He is close to his daughter-in-law Kikuko, who is always supplying him with tea: “When they got home from viewing the sunflowers she hurried for his tea.” In Kurosawa’s Ikiru, a film about an aging bureaucrat struggling with the meaning of life, the stage direction for an early scene in the municipal office states: “Dissolve to the office. Two of the staff are eating their lunch and drinking tea as they talk.” Up to 1980, there was room for tea to grow in this traditional role along with Japan’s population and economy, but soon enough all that would be tested.

Japanese Tea Production and Consumption, 1980–Present

During the last decades, the amount of tea produced in Japan has diminished and then stabilized at just over 80,000 tons per year (see table 6).
This amount is about 9.5 percent of world production of green tea, with China growing 80.6 percent, Vietnam 6.8, and Indonesia 2.1.

By far the largest proportion is still steeped leaf tea (sencha), and coarse tea (bancha) has shown some increase during the last decade. So has powdered tea, although the amount (in tons) is still very small. Surprisingly, “jeweled dew” tea has fallen in popularity, but that may be because the amount of a less expensive knockoff (kabusecha) has doubled, from about two thousand to four thousand tons, at the same time. An elderly scholar summed up the situation for Japanese tea over the last fifty years: “Once we drank green tea morning, noon, and night, but now people have coffee with breakfast, black tea with lunch, and green tea in the evening.”

Another important trend has been the dramatic decline in households producing tea. According to the Ministry for Agriculture, Forestry, and Fisheries, the number of households growing tea in 1970 was over 1.1 million. By 2001, the number had shrunk by 90 percent to 102,400. Of course, these figures denote a huge growth in productivity, since one-tenth the number of farmers are now cultivating about the same amount of tea as thirty years ago. They also suggest that few farmers now grow tea for home consumption, but instead they go through the market. The same ministry today designates tea as a “crafted agricultural product” (kōgei nōsakubutsu).

Despite this decline in growers, as shown in table 7, almost all production is for domestic consumption. To be sure, there has been a modest increase over the last decade, but the amounts are still very small. Earnings

Table 6  Tea production in Japan, 1980–2009

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Steeped</th>
<th>Coarse steeped</th>
<th>Powdered</th>
<th>Gyokuro</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>102,300</td>
<td>81,400</td>
<td>12,100</td>
<td>415</td>
<td>553</td>
</tr>
<tr>
<td>1985</td>
<td>95,500</td>
<td>74,700</td>
<td>11,500</td>
<td>552</td>
<td>420</td>
</tr>
<tr>
<td>1990</td>
<td>89,900</td>
<td>72,700</td>
<td>8,020</td>
<td>896</td>
<td>357</td>
</tr>
<tr>
<td>1995</td>
<td>80,400</td>
<td>63,900</td>
<td>8,020</td>
<td>820</td>
<td>305</td>
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<tr>
<td>2000</td>
<td>84,700</td>
<td>63,500</td>
<td>11,400</td>
<td>1,010</td>
<td>207</td>
</tr>
<tr>
<td>2005</td>
<td>100,000</td>
<td>70,200</td>
<td>18,200</td>
<td>1,630</td>
<td>227</td>
</tr>
<tr>
<td>2009</td>
<td>86,000</td>
<td>58,600</td>
<td>17,600</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>2013†</td>
<td>82,849</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Cha kankei shiryō (Nihon chagyō chūō kai, 2010), p. 10.
Note: All figures are given in tons.
*Asterisks indicate that no figures were available.
†Figure for 2013 is from the Ministry for Agriculture, Forestry, and Fisheries.
range from six to eight billion yen in good years. For these exports, the United States is the best customer, far ahead of other places such as Canada, Singapore, Hong Kong, or Taiwan. The green tea on the menu at the St. Louis restaurant mentioned in the introduction could well have come from Japan. As for Cape Town, I can be less certain, although Japanese exports to South Africa increased by 50 percent between 1999 and 2009.57

Faced with a static or diminishing home market due to a stable and then shrinking population, a lifeless economy (after 1990), and the growing popularity of other beverages, the tea industry tried to capture new consumers and hold on to old ones. The most effective marketing tool was developed by tea giant Itoen, that is, the utilization of PET bottles beginning in 1990. To elaborate, by that year convenience stores like 7-Eleven and Lawson, as well as vending machines, were located at almost every street corner of towns and cities. The coffee industry had been ahead of the curve because it first sold canned coffee from vending machines as early as 1973. Now tea joined the fray. The result has been that bottled sencha and gyokuro of high quality have become immediately available and remain relatively popular.58

The strategy has been so successful that the older generation in Japan worries that those aged thirty and younger will only know PET bottles and be unable to recognize tea leaves or how to use a kettle for steeped tea. The adoption of this strategy, however, ranks as one of the most

Table 7  Japanese tea exports, 1980–2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Total</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>102,300</td>
<td>2,080</td>
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<tr>
<td>1985</td>
<td>95,500</td>
<td>1,762</td>
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<tr>
<td>1990</td>
<td>89,900</td>
<td>283</td>
</tr>
<tr>
<td>1995</td>
<td>84,800</td>
<td>461</td>
</tr>
<tr>
<td>2000</td>
<td>89,300</td>
<td>684</td>
</tr>
<tr>
<td>2005</td>
<td>100,000</td>
<td>1,096</td>
</tr>
<tr>
<td>2009</td>
<td>86,000</td>
<td>1,958</td>
</tr>
<tr>
<td>2011†</td>
<td>82,100</td>
<td>2,387</td>
</tr>
<tr>
<td>2013†</td>
<td>82,849</td>
<td>*</td>
</tr>
</tbody>
</table>

Source: Cha kankei shiryō (Nihon chagyō chūō kai, 2010), p. 47.
Note: All figures are given in tons.
* Asterisk indicates that no figures were available.
† Figures for 2011 and 2013 come from the Ministry for Agriculture, Forestry, and Fisheries.
important changes in the history of Japanese tea, along with the introduction of the tea grinder around 1250 and the invention of steamed, steeped tea around 1740. It has probably been a major reason that tea has at least held its own in the domestic market since 1990.

More effective advertising has also held the market for Japanese teas steady. During 1997–2013, tea advertisements for television won prizes in fourteen of seventeen years. In 2007, Japan’s giant beverage company Suntory won a gold medal for an ad for its tea called lemon. In the TV spot, a Japanese man and woman are pictured wearing traditional garb in breathtaking natural surroundings. The appeal, however, is more than just a pitch to traditional Japanese values. The beautiful wife says: “How wonderful!” a sentiment with which the husband lemon agrees. Then the wife comments: “It’s nice to do this every once in a while and forget all about work”, as lemon grunts his approval and replies, “Let’s come again.” In the frantic modern world where coffee and “power drinks” have become associated with a long workweek and exhausting schedules, Suntory has succeeded in casting its excellent tea as a way to relax. Of course, drinking green tea from a PET bottle as one hurries to catch a subway train hardly qualifies as relaxation. Other ads associate traditional Japanese scenes nostalgically with a slower, saner pace of life.

When I was doing research in Kyoto in 2014, I saw what I thought was a particularly effective TV spot. In a sunlit kitchen, two attractive Japanese housewives were shown preparing tea. In front of each sat a clear pitcher of water, until the ladies introduced green tea. One woman then poured a small amount of powdered green tea into the enticing pitcher and the camera showed the container as it turned an alluring deep-green color. The conversation then turned to the supposed healthful qualities of green tea. Those qualities may or may not be inherent in green tea, but the claim was the same as Yōsai made eight hundred years ago in his Drink Tea and Prolong Your Life.

For diverse reasons, green tea is still a product with appeal inside Japan and out. Fukujuen, the tea retailer working with Suntory on the lemon project, has an up-market store in downtown Kyoto. In the basement, young women serve customers tea. What is notable about the shop is that it has on hand teas produced all over Japan. The consumer can try Ureshino stir-roasted tea or some powdered tea from Uji. Customers are also encouraged to mix different teas to find the flavor that fits their discerning taste buds. The store is only one way in which green tea has tried to meet the challenge of an advanced consumer society. Green-tea candy, ice cream, and even cosmetics comprise other attempts to access the market.
Competition among producers to sell their teas to retailers is therefore keen. Every year in Shizuoka and all around the country producers gather to compete in regional auctions. In the Kanto Auction, tea farmers hailing from all prefectures north of Shizuoka who want to sell their raw tea (aracha) submit their finest products from that year. The teas are judged and ranked on their appearance, flavor, and other qualities in an auction lasting from 10:00 a.m. to 3:00 p.m. one day every spring. As judges inspect the products, conversations and greetings are exchanged among those who know each other. The best teas are awarded points, and it is possible for producers to receive all the points. Teas are also singled out for prizes. For example, one tea producer garnered 193 of 200 points and placed seventh, winning a silver medal. The final bid for one kilogram of his tea was over 35,000 yen (about US$360 at the time). Other teas sell for as much as 181,000 yen, or about US$1,800, for a kilogram. Sellers are allowed to state before the auction that they will not sell their tea for less than a certain amount, such as 5,000 yen per kilogram. New information on cultivation and processing methods is also discussed.

According to information supplied to me by an official at Itoen, there were 102 tea retailers in Japan as of 2014. Itoen, the biggest tea company in Japan, had the largest share of the market at 6.6 percent in 2008. In 2000, the last year for which I was able to retrieve sales information for all companies, most retailers were small; some had annual sales of about 500,000,000 yen, or about five million US dollars. To put this in perspective, in 2008, total tea sales in Japan amounted to 317 billion yen, and Itoen’s share was 21 billion yen. In this sense, Japan has remained a land of many small tea producers and retailers marketing teas for individual tastes.

During 2010–2011 and again in 2014, I traveled to many tea-producing regions and saw many fields and factories. There were all types of enterprises, from small family concerns producing powdered tea and gyokuro in Uji to the huge modern facility of Itoen located in Shizuoka. At Yoshidaen in Uji, the small family-owned company possesses its own tea fields and handles tea from growing through processing to retailing, all within the same location. Machines are used, but there is much labor, especially the rolling, which is done by hand. Powdered tea was even ground on a stone grinder. Marukyū Koyamaen, also in Uji, is larger than Yoshidaen. At Marukyū, the main product is powdered tea sold to Urasenke, Japan’s largest organization for the tea ceremony. At Itoen, on the other hand, scientists in spotless laboratories tested the product in hundreds of ways to mass-produce just the right bottled and bagged tea. Computers handle much of the processing. Itoen even has a subsidiary in Hawaii, where customers may buy green-tea bags in convenient boxes. The tea on the
menus in St. Louis and Cape Town could well have come from an Itoen factory somewhere in the world or even Japan.

There has been a recent challenge for Japan’s tea industry. On March 11, 2011, a massive earthquake took place deep in the ocean off northeastern Japan, causing a giant tsunami. These natural phenomena would have had little impact on tea producers, except that the tsunami triggered several meltdowns in nuclear reactors in Fukushima. Radioactive materials rode the winds to the south, irradiating tea crops in the Kanto and other areas. France and several other European countries therefore refused to buy Japanese green tea for the foreseeable future. How the tea industry will deal with this problem is yet to be determined, but it has had little effect on Japanese consumers.

Previously, I noted that green-tea ads usually feature traditional characters dressed in kimono and placed in historical scenes. Certainly, Japanese tea utilizes its appeal to old-fashioned Japanese values, although coffee has also gained a reputation as a sociable drink to rival tea. Furthermore, the idea of what constitutes “old-fashioned” values is increasingly open to interpretation. In this light, it is interesting to note the appearance of the award-winning anime, comic book, and TV series featuring a character known as “Hyōgemono.” Each tracks the story of Furuta Oribe, a samurai general and central figure in the world of the tea ceremony during the Warring States period about five hundred years ago. Furuta was known for his asymmetrical, even warped tea utensils and unusual sense of beauty. His appellation “Hyōgemono” refers to someone who plays the fool or makes jokes. Far from the prior association with hospitality, a figure from tea has become a heroic individual—his own man. Ways to appeal to the past are unending.

This book has stressed three themes concerning tea as a commodity in Japanese history. The modern period witnessed further developments in all three: tea farming, the drink’s effects on health and worker productivity, and tea’s place in Japan’s consumer revolution. In agriculture, the period from 1868 to the present has contained the rationalization and mechanization of tea enterprises. Until 1925, improvements in tea farming were driven by the desire to export the product. While land under cultivation increased, fields came to occupy flatter areas than during the time before the Meiji Restoration. Productivity of these fields, concentrated in far fewer regions than before, grew by leaps and bounds thanks to better cultivation methods and the mentoring of “old farmers.” The first modern unified system of production, arising after 1860, required a large labor force, mostly female, for plucking and rolling the leaves. After 1925, botanical knowledge and mechanization
applied to harvesting through the final processing reduced costs by elimin-
ating most of the workforce. The industry, however, remained splintered 
into innumerable small enterprises producing for local and niche markets.

Concerning health benefits, the impact may not be so obvious, as the 
“industrious revolution” had ended by the mid-nineteenth century. The 
populace, which was consuming tea almost universally by 1900, probably 
continued to derive benefits in longevity and general health when com-
pared with other regions of the world. Then, too, during the twentieth 
century, a major advertising strategy for tea companies was to note the 
health benefits, especially to tout the role of vitamin C. Given the promi-
nent place of tea in the workplace from 1890 to 1970, it probably encouraged 
office labor to be more diligent too.

Tea played an interesting role in the development of Japan’s consumer 
society after 1850. Consumption of tea in Japan was pervasive during 
1850–1960 in the rising consumer society of that era. However, as Japan 
became increasingly urban and affluent beginning in the 1960s, imported 
coffee began to take customers away from tea. Until 1980, growing popu-
lation and per capita incomes allowed companies to increase tea sales. 
The effective use of advertising also helped fend off decline. Since 1980, 
tea consumption has declined as coffee became even more popular and 
Japan’s “economic miracle” came to an end. To combat this trend, tea adapted 
to a world where convenience stores and vending machines played an 
important role by selling the beverage in PET bottles. As a result, the tea 
industry is a highly competitive and lively one; Japanese still find a place 
for green tea at home, in the office, and in restaurants.

I have come to the end of the nearly thirteen-hundred-year-long 
journey of tea in Japan and tried to show how Japanese green tea could 
have been on the menu in locations as diverse as St. Louis, Missouri, and 
Cape Town, South Africa. It remains to draw some conclusions about the 
beverage and its varied roles in Japanese history.