

Sweet Tales of Sweet Potatoes in Edo Japan

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ABSTRACT: Roasted, steamed, pureed, candied-sweet potatoes or satsumaimo are considered autumn delicacies in traditional Japanese cooking (*washoku*). Although native to the American continent, nowadays, they take part in the Japanese pantry. They arrived in Western Japan in the 17th century, where they prospered as a nutritious, hardy crop and spread eastwards in the following centuries. As a case study, this paper will present the sweet potato's introduction, diffusion, and acceptance during the Edo period (1600–1868) when *washoku* took shape. Based on written sources and material culture, the main topics will be the naturalization and acculturation of a foreign entity and how a cuisine reacts and adapts to it.

Japan has been thought and even romanticized as an isolated archipelago away from world events until modern times, in part coming from the fact that it closed its borders for over 250 years during the Edo period (1600–1868) during the *sakoku* (lit. closed country). Yet, traditional Japanese food would lack essential ingredients such as rice, soy, and tea, if it was not due to movements that came to and through the archipelago. Nevertheless, Japan has never been away from some form of contact with the exterior, even in the most restrictive periods. Even during *sakoku*, new products coming from America would spur a change in the agriculture, diet and gastronomy.

Although closed to the world, Edo Japan was a time of relative peace, which allowed for the rural and the urban spheres to develop and flourish. Even with the clearing of new lands, with 67% of mountainous terrain, Edo farmers had no other option than to rely on intensive agriculture. That translated into new varieties of already existing crops, fertilizers and even insecticides. Farming knowledge was registered for the first time and experimentation was encouraged. Increased production translated into wealth, as the tax system in the Edo period (1600–1868) was based on the rice production unit or *kokudaka*, and other commodity prices were based on it. However, for many farmers, rice was cultivated not for self-consumption, but for fiscal and commercial reasons—selling rice allowed them to purchase other products. Due to its value as currency, a speculative rice market in Osaka was born, which artificially raised its price for profit. So, depending on the region, Japanese farmers combined different types of fields and crops for tax payment and subsistence as a food security measure. And it was needed, as Japan suffered three big famines during that time: Kyouho (1732), Tenmei

(1783–86) and Tenpo (1836–38). Even with the development of new practices and products that would assure more stable rice crops, Edo period farmers were affected by plagues, natural calamities and unscrupulous brokers (Verschuer 2017). As commercial agriculture developed to feed a new growing population, the city was asserting its influence over the fields, as it needed food more than ever before.

As Japanese production per land unit skyrocketed, so did its population. A growing population led to urbanization—Edo city grew out of nothing, from a small fishing village in less than a century. Peaceful times led the arts to flourish, the publishing industry to boom, and restaurants and food stalls to sprout across the country (Hanley 1991). Changes in agriculture, urban life and art expression led to Japanese cuisine to change in many ways, registered in cookbooks, diaries and prints that give us a glimpse of the foodways at that time. It was a time of development of new culinary knowledge, of old and new products, of experimentation in the fields and in the kitchen and of naturalization of foreign bodies, intermingling between them and with the already existing cuisine. This paper illustrates the introduction of a new crop, sweet potato, and its triple role as hunger reliever, side dish and snack, and its remarkable impact on Japanese food culture.

Arrival and Expansion

America's discovery, aftermath and the birth of long-distance sea trade brought an era of transmission of plants and animals between continents. Portuguese and Spanish ships sailed to Asia, bringing crops that would change the region forever, such as corn, chilies and sweet potatoes. According to the Chinese medical manual *Běncǎo gāngmù* (Compendium of Materia Medica, 1596), sweet potatoes arrived first from the Spanish colony of the Philippines to Southern Ming China in 1573, reshaping the region's agriculture. By 1639, we find a detailed explanation in everything related to the new wonder crop in the *Nóngzhèng quǎnshū* (The Complete Book of Agricultural Administration) (Miyamoto 1993, 20). Sweet potatoes arrived at the Ryukyus, nowadays Okinawa, from Fujian (China), in 1605 (Takemitsu 2001, 202). The Ryukyu Kingdom was a tributary of China, so there were many commercial products and cultural influences from the continent, including agricultural products. Learning that a new crop of sweet taste and significant returns were being planted by some regional ruler called Megun, Ryukyuan noble Gima Jinjō decided to plant it in his garden and, seeing its high level of productivity, ordered it to be planted

across the islands as a part of a plan to reinforce their production system. Jinjō would also introduce cotton cultivation from Southern Japan in 1611 and sugar cultivation and production techniques from China in 1623 (Miyamoto 1993, 25). In China and Ryukyu, sweet potato quickly gained recognition and was widely accepted for its characteristics.

Around that time, Ryūkyū was conquered and vassalized by the Satsuma domain, the southernmost division of the island of Kyūshū, in 1611. This brought Ryūkyū and mainland Japan closer and established a trade route between them. Depending on different local traditions, there is an open debate on when, where, and how the sweet potato entered mainland Japan. According to Shindo et al. (2007), one theory attributes it to the Satsuma soldiers bringing them back from the Ryukyu; a second one states that Tanegashima Hashimoto, the local chief of Tanegashima island in Southern Satsuma, received them as a gift from Ryukyu's King Sho Tei in 1698; others believe that a Satsuma fisherman called Maeda Riemon introduced and popularized them in his village by 1705. Miyamoto proposes an even earlier date at the port of Hirado (Nagasaki) in the northwest of the island, when an English merchant called Richard Cocks recorded in his diary in 1615 that some *ryukyūimo* were given by captain William Adams, which he then planted (1993, 36–37). Nevertheless, it seems that Cocks' experiment did not pass the level of mere curiosity. Regardless of the year, later sources name Satsuma as the starting point of sweet potatoes in mainland Japan. Ultimately, the willingness to give date, place and name to the start of sweet potatoes in mainland Japan shows more of their importance in the Japanese tradition than actual historical interest.

As stated above, sweet potatoes expanded through temperate Japan relatively fast, regardless of how that process started. They adapted very well to the limestone soils called *shirasu* that were unsuitable for any other crop, common all over Kyūshū yet predominant in Satsuma. Widespread consumption of sweet potatoes in Satsuma can be found by the time of the Great Kyōhō Famine (1732), when a plague of locusts wiped out almost every crop in Kyūshū, yet sweet potatoes survived (Shindo, et al. 2007, 148). Sweet potato saved people from starvation, and that is evident in the demography. While between 1721 and 1750, the population in other provinces such as Kyūshū grew sparsely or even declined, Satsuma grew by 23.3%. Noticing that, some *rangakusha* (scholars in Western studies) at Nagasaki assessed their value and sent letters to the government recommending its cultivation (ibid, 150). However, they were not the first to realize their real worth. There are allusions to sweet potatoes in Iyo (1628) (Miyamoto 1993, 46), Hiroshima (1683) (ibid, 51) and Kyoto (1717) (Matsuoka 1789), all prior to the famine. They were considered more as novelties rather than for any potential. Oddly enough, the Shimazu clan of Satsuma banned the export of sweet potato seeds including from Ryūkyū, probably to stand out in front of other domains.

Even before any intervention from the central government, sweet potato seeds spread around the Seto Inland Sea. Thus, in Iwami (Shimane Prefecture), upon hearing of what had happened in Satsuma, the magistrate Ido Masaaki had sweet potatoes planted to feed the starving people in the silver mines of Ōmori, earning the nickname of *Imodaikan* (Potato Magistrate) (Takemitsu 2001, 203). Likewise, tradition says Buddhist monk Asami Kichijūro smuggled sweet potato seeds from Satsuma to Iyo, popularizing them and becoming a local hero (Kobayashi 1984, 59–60; Miyamoto 1993). Considering that they were recorded in Iyo over a century earlier, we can ponder that they were no more than a curiosity back then. The impact of the Kyōhō Famine and the stories about the Satsuma potatoes brought them to prominence, spurring their diffusion.

Correspondingly, *shōgun* Tokugawa Yoshimune commissioned sweet potatoes to be planted at the Koishikawa Rakuen, his private garden of medicinal plants (Takemitsu, 2001), while in 1734, seeds sent by the Shimazu clan of Satsuma were experimentally planted in Kōzuke (Gumma) and Shimotsuke (Tochigi). Moreover, Yoshimune commissioned scholar Aoki Kon'yo to set out to popularize sweet potatoes in the Kantō region in 1735, using Kawagoe (Saitama) as a testing ground for several varieties more appropriated to colder climates (Takemitsu 2001). Based on his experience, he published the manual *Banshokō* (Thoughts on Sweet Potatoes, 1735). The book covers all aspects of sweet potatoes, including shape, type, taste, cultivation and storage, and makes references to *Nóngzhèng quánsū* (Aoki 1779). It was so popular that it would be reprinted several times over the next two centuries. After the Great Tenmei Famine, they spread rapidly in urban Edo, mainly among the working classes. Finally, as the famine continued in Ōshū (Iwate) in 1784, the sweet potato was enthusiastically accepted, gradually reaching Northeastern Japan (Hanley 1991, 81). Therefore, it took only around 50 years of government support for the sweet potato to spread all over Honshū, constrained by the slow development of new cold-resistant varieties. Sweet potatoes would achieve great popularity throughout the country, not only as a food but also as a precursor to other products such as *shōchū* liquor or starch, the former in its homemade form and the latter as an industrial product—a factory was established in 1837 in what is now Chiba Prefecture (Shindo et al. 2007). Sweet potatoes had the potential to become more than just food.

Different environments and different uses propelled the search for different varieties. In 1857 the feudal lord Shimazu Nariakira from Satsuma decided to import and start producing a North American variety, which he called *orandaimo* (Dutch potato) (ibid). Sweet potatoes already had many names. Apart from the prevalent name *satsumaimo* (Satsuma potato), depending on the time and place, it could be called *karaimo* or *tōimo* (Chinese potato), *ryūkyūimo* (Ryukyuan potato), *kansho* (Sweet potato) or

bansho (Luxuriant potato). In many sources, just the word *imo* (Tuber, potato) referred to sweet potato, surpassing in importance and supplanting other native tubers such as *satoimo* (taro) or *nagaiimo* (Chinese yam). Sweet potato, thus, became the tuber par excellence, yet it is hard to identify different potato varieties through name alone until the normalization of names in the modern era. The sweet potato was, in some sense, a superfood. On the agricultural side, it could grow in poor soils, yield was high, and it was a hardy crop. As an ingredient, it attracted attention for its flavour, nutritional value, and versatility, not only in its raw state but as raw material for other products. Moreover, it had a double significance as itself (its aforementioned characteristics) and as a symbol (a new, foreign wonder crop), represented in its cultural value over the centuries.

Hunger and Cuisine

If production boomed this is because consumption was incredibly high. The arrival of sweet potatoes implied an effort by the local population to adapt the new product to the local cuisines using techniques and flavour combinations that their palates could understand; in the fields and the kitchens, it was a learning exercise. For their characteristics, sweet potatoes appealed especially to the masses. Confucian scholar Terakado Seiken devotes a chapter to them in his *Edo Hanjōki* (Report on the Prosperity of Edo, 1832–1836), a social satire about commoners' livelihood in Edo. He recalls from his childhood that an elderly man told him that sweet potato varieties used to be scarcer and more expensive; some people even believed they were poisonous. They had become a commoner's food at that time—Terakado states that sweet potatoes are his only resort when lacking money for rice (1836, 81). Because of their versatility and wide availability, they generated a set of preparations, some more popular than others. From the 1790s, the working classes got used to eat roasted sweet potatoes (*yakiimo*) from specialized stalls. Their selling name, *harihan* (eight and a half *ri*, where *ri* is the name of an old Japanese unit of distance, approx. 3.927 km), is a pun on the word chestnut or *kuri*, which can be written as nine *ri*, as Terakado says they tasted like roasted chestnuts but were slightly inferior (Terakado 1835; Marku 1992). Ehara states that this “almost chestnut” comparison can also be observed in two sketches from a book published during the Great Tenpō Famine (1833–37), illustrating a typical household kitchen with instructions that sweet potato skins should be left on when cooked with rice (2015, 12). The image shows children eating rice and sweet potato porridge. Curiously, *kuri gohan* (chestnuts cooked with rice) is a typical dish nowadays, so it can be presumed that this sweet potato porridge has its origins in *kuri gohan*. Comparison with a pre-existent ingredient is a good gateway for local cuisine to become used to and adapt to a foreign entity and find a place for it within its culinary culture.

The expansion of sweet potatoes happened to occur at the same time as a printing boom in Japanese society. At the time, Japanese society was the most alphabetized society in the world, and city dwellers were avid readers who could buy or rent books at a low cost (Hanley 1991). This boom included the culinary world in culinary guides, art prints, treatises and home cookbooks. One of the most popular cookbooks series was the *Hyakuchinmono* (Things in One Hundred Ways), which consisted of single product-centred cookbooks, such as tofu, eggs, yuzu, or sea bream, divided into progressive levels of difficulty, clearly showing their educational purpose. There is no shared author for every *Hyakuchinmono*, so it could be considered a subgenre of cookbooks more than a single person's enterprise. At the time, a set of recipes had already developed around sweet potatoes, as recorded by Chinkorō Shujin in the *Imo Hyakuchin* (Hundred ways of potatoes, 1789). There is not much information about the author apart from his origin, Osaka, where the book was published. Sweet potato is referred to as *kansho* in the title, yet it reads as *imo*. The kanji of *kan* means sweet, signifying that the varieties used in the book were already sweet in taste. The introduction, written in Classical Chinese, describes their foreign origin, expansion northwards and the difference between different varieties based on their physical appearance (Chinkorō 1789).

Based on the structure of the first published volume, *Tōfu Hyakuchin*, it is divided into four sections of increased difficulty and includes a section on product quality. Its most basic preparations consist of making sweet potato versions of other dumplings and pastes such as *dango* (rice dumplings) or *kamaboko* (fish paste)—recipe no. 7 *Chakin imo* (Tea towel potato) is just sweet potato mashed and shaped in a tea towel, a cheap but pretty teatime treat. The aforementioned roasted sweet potatoes (no. 75, *Yakiimo*) and sweet potato rice porridge (no. 74, *Imochagayu*) are also recorded. Sweets are prevalent in the book, going further than the traditional *wagashi* sweets and introducing Western-style cakes such as no. 87 *Kasutera imo* (Castella potato, castella meaning sponge cake). Nevertheless, the author does not stop there and includes savoury dishes (no. 59, *Homaguri imo*, Clam and potato) and preserves (no. 22, *Misotsuke imo*, Miso-pickled potato). Sweet potatoes can be dressed (no. 68 *Soboro imo*, Steamed potato dumplings with soy sauce dressing) or be the dressing (no. 56, *Imoae*, Potato dressing). There are also recipes for an unrefined homemade version of *shōchu* (no. 60, *Imozake*, Potato alcohol) and potato starch (no. 66, *Imo no jin*, “Essence of potato”). On the other side of the spectrum, the book gives detailed measurements for making high-class confectionery such as no. 102 *Imo yubeshi* (Sweet potato preserved in a yuzu) (ibid 1789). Even if many of these recipes cannot be found in cookbooks today, it shows the ingenuity of the population for making the best use of the new crop.

Furthermore, *Imo Hyakuchin* is also an evidence of a trend occurring in Japanese cooking by the 18th century: it

was getting sweeter. Until then, sugar was for medical purposes and was prohibitively expensive; savory cooking did not typically add other sweeteners like honey. Formerly being a Ryūkyū tribute to the Satsuma's Shimazu clan, brown sugar began to be produced in Southern Kyūshū and commercialized with the rest of the archipelago in the second half of the 17th century. As production increased and its price fell, sugar became more widely available to the population and was no longer a luxury, with confectioneries springing up across Japan's cities. An Edo catalogue of 1683 cites 172 different types of sweets (Hashizume 2017, 30–37). Japanese cooks started adding sugar to their dishes, and *mirin* (sweet rice cooking wine) appeared in cookbooks by the end of the 18th century. However, over time confectionery became a more specialized craft, producing delicate sweets for special occasions and specific sectors of society, typically the urban upper classes. As technology improved, sugar producers profited more, making highly refined sugar that could be sold at a higher price to specialists in the metropolis, raising its price as a result. It further merged with an inflationary trend that continued until the 19th century, affecting the basic needs of the urban commoners. For example, rice price inflation and its day-to-day effects appear in dialogues in the novel series *Ukiyoburo* (Floating Baths, 1809–1813) (Ehara 2015, 14–16). Terakado further exemplifies this process with the rice-based sweet *daifuku*—formerly a poor man's food and large in size, now significantly more expensive and smaller (1836). As the prices of some foodstuffs relied on rice, including sugar and azuki beans for sweets, the increase of the former affected the rest; the Toyama family accounts record an increase in the price of rice and sugar in the 1820s onwards (Vaporis 2008). Besides, several osteoarchaeological studies have concurred that a more significant increase in consumption of simple sugars in the late Edo era is responsible for an increase in tooth decay in urban Edo (Fujita 2012; Oyamada, et al 2004; Oyamada, et al. 2008). Therefore, more expensive sugar (ingredient) but higher consumption of simple sugars (carbohydrates) shows that, even as the sugar price increased, which would lead to lesser consumption of sugar, people were still looking for ways to include sweetness in their diets and palate, in this case in the form of sweet potatoes. They became accustomed to it, and there were plenty of ways of doing so.

Final Thoughts

Japan's sweet potato tale is one of many. The Columbian exchange would transform the world's agri-food system over the next few centuries. The different populations had to rely on their culinary background to integrate new foodstuffs into their cuisine. In this particular case, we can observe how food culture behaves when it faces a new, foreign product and how it reacts and adapts to it, making crisis a catalyst of change. Even if sweet potatoes did not replace rice as the symbolic staple food such as the potato

in Ireland, or become an integral part of almost every dish like chilies in China and Southeast Asia (Laudan, 2016, 201), in comparison their influence was rather nuanced. Nevertheless, Japanese people have not forgotten the sweet potato's savior role. Shinto shrines dedicated to sweet potatoes and their supporters sprouted up across Japan: in commemoration of Maeda Riemon and the first sweet potato field in Kagoshima prefecture (former Satsuma domain); for the dried sweet potatoes that brought riches to a city in Ibaraki prefecture; or for the sweet potato itself as a god in Saitama (Sakai, 1999). Furthermore, Aoki Kon'yo is deified in Chiba as Shojin-sama for his role, and Asami Kichijuuro is called Imojizō (Potato *boddhisatva*) in Ehime (former Iyo) (Kobayashi 1984, 59–62). These are places of continued worship, as sweet potatoes would help both the commoners and the industry in the modernization process, imperial times, and post-war Japan until modern time (Fujiwara 2020), and people are conscious of this.

As culturally significant as they are, rice cultivation and consumption had its flaws. On one side, if the tax system that supported the economy was based on rice and it was sensible both to years of scarce supply and price speculation, so were other foodstuffs like sugar. Much of the diet of the rural and popular Japanese classes had to rely on alternative foodstuffs like sweet potatoes as a result, not only for food security but also for its nutritional values—eating only polished white rice would lead to thiamine deficiency or beriberi. The fast expansion of sweet potatoes across the country makes us think about a food problem, and they became part of the solution. It all relied on the farmers and administrators' knowledge and resourcefulness for developing new varieties that could resist cooler regions and for the consumers know-how to incorporate them efficiently into their diets. The sweet potato could be a staple food, a side dish or a sweet treat depending on the consumer and the circumstances. In the end, the tale of sweet potatoes is also a tale of how two outsiders like Ryūkyū and Satsuma changed the flavour of the classic Japanese cuisine, as the advent of sugar and sweet potato contributed to the sweetening of Japanese cuisine. It is also a tale of some local heroes and many blurry characters who acted for the sake of their regions. Finally, it is a tale of people getting through hard times in a changing world while enjoying the food that is part of that change.

References

- Aoki, Kon'yo. 1779. *Banshokō*. "Tokyo: Kokuritsu Kokkai Zushokan." Accessed January 30, 2022. <https://dl.ndl.go.jp/info:ndljp/pid/2536267>.
- Chinkorō Shujin. 1789. *Imo Hyakuchin*. Osaka. Kyoto University Archives.
- Ehara, Ayako. 2015. "The Diet of the Common Townspeople of Edo." *Kikkoman Food Culture* 25, no 1: 10–16.

- Fujita, Hisashi. 2012. "The Number of Missing Teeth in People of the Edo Period in Japan in the 17th to 19th Centuries." *Gerodontology* 29, no. 2 (June): 520–524.
- Fujiwara, Tatsushi. 2020. "Satsumaimo no Teikoku Nihon." *Mishidasbi Gakkai Daikai Symposium* 89, no. 3 (February): 67–81.
- Hanley, Susan. 1991. *Everyday Things in Premodern Japan: The Hidden Legacy of Material Culture*. Berkeley: University of California Press.
- Hashizume, Nobuko. 2017. *Chiiki Meika no Tanjō*. Kyoto: Shibunkaku Shuppan.
- Kobayashi, Hitoshi. 1984. *Satsumaimo no Kitamichi*. Kokonshoin.
- Laudan, Rachel. 2016. *Cuisine and Empire: Cooking in World History*. Berkeley: University of California Press.
- Markus, Andrew. 1992. "Meat and Potatoes. Two Selections from the Edo Hanjōki." *Sino-Japanese Studies* 4, no. 2: 7–26.
- Matsuoka, Seishō. 1798. *Banshoroku*. Tokyo: Kokuritsu Kokkai Zushokan. Accessed January 30, 2022. <https://dl.ndl.go.jp/info:ndljp/pid/2535623>.
- Miyamoto, Tsuneichi. 1962. *Kansho no Rekishi*. Tokyo: Miraisha.
- Oyamada, Joichi, Kazunari Igawa, Yoshikazu Kitagawa, Yoshitaka Manabe, Katsutomo Kato, Takayuki Matsushita, and Atsushi Rokutanda. 2008. "Pathology of Deciduous Teeth in the Samurai and Commoner Children of Early Modern Japan." *Anthropological Science* 116, no. 1: 9–15.
- Oyamada, Joichi, Yoshikazu Kitagawa, Yoshitaka Manabe and Atsushi Rokutanda. 2004. "Dental Pathology in the Samurai and Commoners of Early Modern Japan." *Anthropological Science* 112, no. 3: 235–246.
- Sakai, Kenkichi. 1999. *Satsumaimo*. Tokyo: Hōsei Daigaku Shuppanyoku.
- Shimizu, A. 2011. *Eating Edo, Sensing Japan: Food Branding and Market Culture in Late Tokugawa Japan, 1780–1868*. (Dissertation). Urbana: University of Illinois at Urbana-Champaign.
- Shindo, Tomoko, Kazuko Tokuda, Kogiku Takehara, Etsuko Fushiyama and Suzuko Hokanishi. 2007. "Kagoshima no Satsumaimo no Hensen to Seiyō. Satsumaimo no Denpa to Riyō (1)." *Kagoshima Junshin Joshi Tanki Daigaku Kenkyū Kiyō* 37, no. 1: 141–152.
- Takemitsu, Makoto. 2001. *Shoku no Hensen kara Nihon no Rekishi wo Yomu Hōbo*. Kawade Shobō Shinsha: KAWADE Mushinsha.
- Terakado, Seiken. 1836. *Edo Hanjōki*. Tokyo: Kokuritsu Kokkai Zushokan. Accessed January 30, 2022. <https://dl.ndl.go.jp/info:ndljp/pid/2610267>.
- Vaporis, Constantine. 2008. "Samurai and the World of Goods: the Diaries of the Toyama Family of Hachinohe." *Early Modern Japan* 16, no. 1: 56–67.
- Verschuer, Charlotte and Wendy Cobcroft. 2016. *Rice, Agriculture, and the Food Supply in Premodern Japan*. London: Routledge.