# The History of Shoyu (Soy Sauce) 4



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## The Production and Diffusion of Shoyu (Soy Sauce)

In this fourth part of the The History of *Shoyu* (Soy Sauce) series, I will explain the manufacturing methods, distribution and ways in which soy sauce was used in cooking during the Edo Period.

With the dawn of the Edo Period soy sauce was being produced all

over Japan and several regions stood out as famous soy sauce producers. The Youshufushi, a book published in 1684, states that, "...though Sakai-joyu (Sakai soy sauce) was once available only from liquor shops in Izumi (modern-day Osaka) and remains very popular, soy sauce is now made by liquor shops in Kyoto, as well as made by hand at home making the purchase of Sakai-joyu unnecessary." The Jinrinkinmouzui, published in 1690, also states that, ...the soy sauce of Sakai is very popular. Soy sauce manufactured in Sakai and Osaka is distributed throughout the entire country." In his book Nihon Eidaigura (1688), Saikaku Ihara presents two stories about the makers of soy sauce. The first story is that a small miso and soy sauce manufacturer in Echigen Tsuruga thought that by using his talents to produce a product at low cost, he could enlarge his business. However, as his business grew, customers dwindled feeling out of place in the large establishment. In the end, his business failed. The second story is about the soy sauce merchant Kiheiji who walked around town selling his soy sauce from wooden buckets

attached to a pole carried on his shoulders. In these two stories, Saikaku discusses the selling of soy sauce from the point of view of a large merchant as well as that of one who sells soy sauce door to door.

In the first half of the Edo Period (17th century), soy sauce was made in all regions of Japan and could be purchased anywhere. In addition, soy sauce was made by hand in the large majority of houses. This is made clear by references in both the *Youshufushi* and the *Honchoushokkan*, published in 1695.

## The Manufacture of Soy Sauce

The method for making soy sauce is first recorded in the *Youshufushi*. The method described calls for a malt to be made from boiled soybeans and roasted barley. Salt and water are added to the malt and the entire mixture placed in a large barrel. The

mixture is to be stirred two or three times a day with a pole resembling an oar. After a minimum of 70 days, the *moromi* (dregs) is to be placed in a cloth sack. A stone is to be placed on top of the sack and the liquid squeezed out. This liquid can then be boiled with other ingredients to create a variety of dishes.

This explanation shows us that the method for producing soy sauce varied little from the way it is made today, though rather than wheat, barley was used and heat was not applied to the extracted liquid.

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An explanation of soy sauce production with an illustration of the proper sort of barrel to be used From *Wakan Sansai Zukai* (1712)

#### From Barley to Wheat

In part 3 of this series, I pointed out that the tou-miso described in the Tamonin-nikki and considered to actually be soy sauce, was made using both barley and wheat. However, in the first half of the Edo Period we see, beginning with the Youshufushi and other publications such as Nihon Saiji-ki (1687) and Honchoushokkan, that barley was included in all explanations of the production process. It seems that it

took time for wheat to be established as the proper mate for soybeans in the production of soy sauce.

Under the listing for *Shauyu* (another term for soy sauce) the book *Yamato Hongusa* (1708) states that soy sauce can be made from either soybeans and barley or soybeans and wheat, while the book *Wakan Sansai Zue* (1712) states that soy sauce made from wheat is suitable for the public and soy sauce made from barley is of low quality. Put simply, the soy sauce sold in shops was made from



Illustrations of soy sauce production.

The process from the roasting of the beans to the final extraction of the soy sauce is illustrated. From Koueki Kokusan-kou (1844).

wheat because that made from barley was inferior. Twenty years later, the book *Mankin Sugiwai-bukuro* (1732) introduces only the soy sauce production method utilizing wheat. With the beginning of the 19th century, the large bulk of soy sauce seems to have been produced using wheat. The *Keizai Youroku* (1813) states that the highest quality soy sauces are made using wheat as the flavor harmonizes well with the soybeans, supporting the idea that wheat, rather than barley, made for a better soy sauce. Therefore, it is thought that the switch from soy sauce made with barley to that made with wheat had been completed by the 18th century.

### Heating and Niban Shoyu (Second Soy Sauce)

Another method for producing soy sauce requires a heating process. The *Wakan Sansai Zue* states

...Squeeze the *moromi* to extract the oil. If the color is light, the flavor will not be good. Boil the oil, place it in a pail and leave it over night to darken the color and improve the flavor. Mix the dregs again with saltwater and extract the oil. This is called *niban shoyu* (second soy sauce), and the flavor is very much inferior 1.

By boiling the extracted oil, both the color and flavor was improved. By the beginning of the 18th century, we see that the effects of heating were known and find many references to *niban shoyu*. In the *Tamonin-nikki*, *niban shoyu* is referred to as *tou-miso niban* (second *tou-miso*) and production discussed <sup>2</sup>. Detailed instructions for making *niban shoyu* are also described in the *Honchoushokkan*. It is clear that with the beginning of soy sauce production, use was also being made of the dregs to make *niban shoyu*.

#### Kijoyu (Raw Soy Sauce) and the Addition of Dilutors

While *niban shoyu* was being made, so were soy sauces made from diluted *moromi*. In Saikaku's *Koushoku Ichidai Onna* (1786) we find reference to *kijoyu* (raw soy sauce) where it states "Add kijoyu to touzatsuke nasubi (pickled eggplant)." In Chikamatsu Monzaemon's first novel set in current times, *Sonezaki Shinchuu* (1703), the hero, Tokubei, is an apprentice in the Hirano soy sauce shop who instructs an employee to make the rounds of regular customers carrying casks of *kijoyu*. With such an explanation, it seems that this soy sauce must have been pure, undiluted soy sauce, though diluted soy sauce was also being made.

*Mankin Sugiwai-bukuro* mentioned earlier, gives a description of the method for making *kijoyu*. From this description while *kijoyu* was very flavorful and could be kept for a long period of time, the high cost of production made selling *kijoyu* difficult. Therefore, a blend of approximately 7–8 liters of *modoshi* for every 18 liters of *moromi* was instead sold.

The 1803 issue of *Shinsen Houchou Kakehashi*, gives instructions on making homemade soy sauce. It states that by adding *modoki*, the soy sauce loses its qualities for preservation making susceptible to both mold and worms. By adding stock, acidity is increased, affecting the flavor. Therefore, it states that *modoki* must not be added when making homemade soy sauce.



It seems, however, that soy sauce blends were being sold in soy sauce shops. This is probably because the cost of the pure soy sauce itself was too high. *Edo Bukka Jiten*, a publication listing the prices of goods from 1757-1772, compiled by Ono Takeo, lists the Edo prices of soy sauce and *sake*. From the prices listed here, we see that the cost of soy sauce ranged from 0.62-1.16 times the cost of *sake*. While the price of soy sauce sometimes exceeded the price of sake, even when the price of soy sauce was lower, it remained within 62% of the price of sake. In general, the price of soy sauce equaled the price of *sake*.

## The Center of Production Moves to Kanto

With the start of the 19th century, it seems that large quantities of high-quality soy sauce were being produced, especially in the consumer hub of Edo in the Kanto region. By the end of the 18th century soy sauce had become a widely used convenient and low-cost seasoning. *Keizai Youroku* (1813) tells us that by the beginning of the 19th century, the distillers of Edo were producing large quantities of high-quality soy sauce to meet the demands of Edo consumers. In addition, *Morisada Mankou* (1853) tells us that at the end of the Tokugawa shogunate soy sauce produced in the Kyoto-Osaka region continued to be distributed in Edo, but that the soy sauce produced in Noda and Tsuchiura was in no way inferior to the Kyoto-Osaka product and helped to meet Edo's high consumer demand.



Selling soy sauce. Soy sauce was carried door to door by vendors. From *Edo Shoubai Zu-e* by Kazuma Mitani (Chuukou Bunko)

## **Exports to Holland**

Japanese soy sauce became a valuable export to other countries as well. Though we see the export of soy sauce from Nagasaki to Holland beginning in 1668 3. the Swedish botanist Thunberg, who arrived in Japan in 1775, wrote in the journal he kept while in Japan that though Japanese teas are inferior to Chinese teas, Japanese soy sauces are far superior to Chinese soy sauces. He noted that large quantities of soy sauce were exported from Japan to Jakarta, India and Europe and that the Dutch, having discovered a method for transporting soy sauce so that quality was not lost, used soy sauce in place of other sauces 4. The foundations for the worldliness of soy sauce were built in the Edo Period.

#### Another Name for Soy Sauce

We know that soy sauce became a standard seasoning relatively early in Japan by the fact that it is also began to be called *oshidashi*. The word *oshidashi* is written using the Chinese characters meaning foundation or base. The term was used during the Muromachi Era (1338-1573) to indicate soup stock or broth, which was the basic ingredient for flavoring foods. *Oshidashi* was used in the same way to later refer to soy sauce. There are several written examples of the use of the term *oshidashi* to indicate soy sauce including *Onna Chouhou-ki* (1692), the three-volume *Ukiyo Burou* (1811), *Tokaidouchuu Hizakurige* (1814) and *Kouto Gosui* (1850).

# Soy Sauce with Cooked Dishes and Soups

Soy sauce becomes a basic seasoning for all types of dishes. As described in the *Rokuon-nichiroku* (1599) mentioned in part 3 of this series, the use of soy sauce for seasoning cooked dishes came first with such dishes as matsutake mushrooms boiled in soy sauce. Uses in soups and broths followed. In *Nippo Jisho* (1603), soups are to be used to "...encourage the drinking of sake or foods boiled in broth offered as a side dish when receiving guests." The *Nippo Jisho* also describes *miso* soup. Until the beginning of the Edo Era, *miso* was the main ingredient in soups and broths, but the *Ryouri Anbai-shuu* (1668) describes soups as being drinks served with sake while broths were drinks served with meals. Despite this distinction, we find that the *sumashi* method of making both included the use of soy sauce. In two other historical works we

find references that show that by the end of the Tokugawa shogunate *sumashi-jiru* is soup made using soy sauce.

#### **Grilled Foods and Soy Sauce**

Switching to the use of soy sauce for grilled foods, we return to the *Ryouri Anbai-shuu* to find several references to applying soy sauce to foods and then grilling them. From the same period, the *Edo Ryouri-shuu* (1674) introduces *irotsuke*, a method of grilling where a mixture of *sake* and soy sauce is applied repeatedly before grilling, one version of which is *yakitori* (grilled chicken). Hereafter explanations of the ways soy sauce was used to season grilled foods such as *tsukeyaki* and *irotsukeyaki* are seen often.

*Kabayaki* (grilled eel) is an excellent representative of *tsukeyaki*. The name, *kabayaki* as well as instructions on preparing it, can be found in the Daisouke Ryouri-sho. Though the actual date of publication is unknown, but it is thought that it was published during the early Edo Era 5. As the Ryouri Anbai-shuu also describes the grilling of eel using soy sauce, it is thought that soy sauce was used in the preparation of *kabayaki* since the early Edo period. A note to the preparation of *kabayaki*, it seems that at the beginning of the Edo Era, kabayaki was prepared by grilling the eel without opening it to display the two halves as it is today, but rather with the two halves closed as fish is often grilled. As the Ryouri Anbaishuu describes removal of the larger bones it may be that the eel was opened to grill the two halves, but this method is not clearly noted until the Chayuu Kondate Shinan (1696) published a little later. There, the modern method of preparing *kabayaki*, including opening the eel at the back to display the two halves and the application of soy sauce before grilling, is introduce

## Sashimi (Raw Fish) and Soy Sauce

The newest use of soy sauce described in cooking books is that of using soy sauce to flavor *sashimi*, first described in the *Kokubyaku Seimi-shuu* (1736). Even in this book, however, examples of using soy sauce with *sashimi* are limited. Most references to *sashimi* seasonings are a variety of vinegars and/or *miso*. This tendency continued until the end of the Tokugawa shogunate with *sake*, vinegar, or soy sauce being used dependent upon the type of fish. Gradually, however, the use of soy sauce for seasoning *sashimi* increased. The use of soy sauce to flavor *tsukemono* (pickles) is also described in a scene from the novel mentioned earlier, *Koushoku Ichidai Onna* (1686) by Saikaku.

From all of this information, it is clear that by the end of the Tokugawa shogunate, soy sauce was used to flavor and season all types of dishes including pickles, soups and grilled dishes. By the Edo Era, soy sauce had already achieved it place as an all-purpose seasoning.

#### Note

- **1** Translation from *Wakan Sansai Zu-kai*, published by Toyo Pocket Library, Heibonsha
- **2** Can be seen in several places including the entry for the date of January 1 in the 17th year of Tenmon (1548)
- **3** From the *Netherlands Literature Museum*, The Hague, The Netherlands. *Noda-no Shoyu Keiei Shiryou Shuusei* (A compilation of materials related to the history and management of soy sauce in Noda) published by the *Noda-shi Kyoudo Hakabutsukan*
- **4** Thunberg's Japan Journal translated by Yamada Tamaki, Okugawa Shobou
- **5** In *Ryouri Bunken Kaidai* (edited by Kawakami Yukuzou, Shibata Shoten), Kawakami Yukuzou states that this book (*Daisouke Ryouri-sho*) was published between 1573 and 1643.

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