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 Jinrinkinouzui, 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.

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 Shoyu (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...
Mankin Sugawari-bukuro mentioned earlier, gives a description of the method for making kijoyu. 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 moromi for every 18 liters of moromi was instead sold.

The 1803 issue of Shinent Houhou Kakehashi gives instructions on making homemade soy sauce. It states that by adding modulus, 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 modulus must not be added when making homemade soy sauce.

Illustrations of soy sauce production. The process from the roasting of the beans to the final extractions of the soy sauce is illustrated. From Kosui Kikutsum-kai (1844).

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 1664, 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 tea, Japanese soy sauces are far superior to Chinese soy sauces. It 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. 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 (1358–1573) to indicate soup stock or broth, which was the basic ingredient for flavoring foods. Oshidashi was 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 Chousui-ki (1692), the three-volume Ukiyo Bora (1811), Tokaidohenzoku Hikarigire (1814) and Kunto Ginzo (1850).

Soy Sauce with Cooked Dishes and Soups
Soy sauce becomes a basic seasoning for all types of dishes. As described in the Rakusan-nishikigi (1599) mentioned in part 3 of this series, the use of soy sauce for seasoning cooked dishes first with such dishes as manjaitake mushrooms boiled in soy sauce. Uses in soups and broths followed. In Nippô Jûro (1605), soups are to be used to “…encourage the drinking of sake or foods boiled in broth as a side dish when receiving guests.” The Nippô Jûro also describes miso soup. Until the beginning of the Edo Era, miso was the main ingredient in soups and broths, but the use of soy sauce increased. The newest use of soy sauce described in cooking books is that of sashimi (raw fish) and soy sauce.

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 Koka-byûke Seim-shû (1756). 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 sashimi increased. The use of soy sauce as a flavor nakonimo (pickles) is also described in a scene from the novel mentioned earlier, Keshoku Ichidai Omochi (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.

Notes
1 Translation from Wakan Sansai Zu-kai, published by Toyot Keibunsha, 1970
2 Can be seen in several places including the entry for the date of January 1 in the 1765 year of Tenmû (1548)
3 From the Netherlandish Literature Museum, The Hague, The Netherlands, Neder-landse Zeeuwske Stoomer-Shooan (A compilation of materials related to the history and management of soy sauce in Netherlandish published by the Nederlands K ונד果断ק רודלועקע)
4 Thunberg’s Japan Journal translated by Yamada Tamaki, Okayama Shobô
5 In Ryouton Kaden-shu (edited by Kawamoto Yukusai), Mita Shunto, Kawamoto Yukusai states that this book (Daidaike Yoruri-sho) was published between 1577 and 1645.

Grilled Foods and Soy Sauce
Switching to the use of soy sauce for grilled foods, we return to the Ryouuri Ambai-shu to find several references to applying soy sauce to foods and then grilling them. From the same period, the Edo Ryôshûkai-sho (1744) introduced by joking that when 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 tsukyokey and iwruskeyai are seen often. The word, shoyu is also used as a term on preparing it, can be found in the Daikutoku Yoruri-sho. Though the actual date of publication is unknown, it is thought that it was published during the early Edo Era. As the Ryouuri Ambai-shu also describes the grilling of cel using soy sauce, it is thought that soy sauce was used in the preparation of kakeyai since the early Edo Period. A note to the preparation of kakeyai, it seems that at the beginning of the Edo Era, kakeyai was prepared by grilling the cel 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 Ryouuri Ambai-shu describes removal of the last part may be that the cel was opened to grill the two halves, but this method is not clearly noted until the Chûya Kondai Shûshi (1696) published a little later. There, the modern method of preparing kakeyai, including opening the cel at the both display to the two halves and the applications of soy sauce before grilling, is introduced.