

# Hokkaido Food Culture: Mentsuyu and the Emergence of Kombu Soy Sauce

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## 1. Hokkaido Development Commission and Soy Sauce Brewing

The history of soy sauce brewing in Hokkaido is relatively new. The early-Meiji administration unit for Hokkaido, the Hokkaido Development Commission, was established in 1869, leading to rapid migration from other areas and prompting the brewing of soy sauce in Hokkaido for the first time. The first Hokkaido-based soy sauce brewery was established in Sapporo by the Commission in 1877 and later sold to the private sector. The government strategy of kickstarting the soy sauce industry by building factories which were then sold to the private sector resulted in a well-developed industry of 16 companies in the Sapporo soy sauce manufacturing association by 1899.

In many areas around Japan, local soy sauce production was started either by village headmen making soy sauce to distribute to residents, sake brewers transferring their brewing technology to soy sauce production, or through the establishment of soy sauce brewers in the more populated castle towns and post towns, leading to diverse styles. In Hokkaido's case, in contrast, breweries based their production on the dark Kanto-style *koikuchi* soy sauce modeled in the government-operated factories, leading to a homogeneous style throughout the vast north island. The words of the president of one present-day soy sauce maker in Hokkaido – “Taiho, Toyota, Kikkoman” – show Hokkaido residents' preference for major brands, making it difficult for smaller scale local manufacturers to compete.



Hokkaido Development Commission's first Sapporo soy sauce brewery, 1877 (Held by University of Hokkaido Library)



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## 2. Hokkaido: Essential in Japan's Defense

During World War II, Hokkaido was a key strategic point in the defense of the north against Russia, as shown by the presence of the elite seventh division of the Japanese army. Much soy sauce was sent from around Japan at that time, but the government recognized the risk to supply for the army and the general public in Hokkaido were Russia to block the Tsugaru Straits. This prompted an overhaul of Hokkaido's industrial structure: the government slashed the number of sake brewing factories by half and forced the others to divert their resources to other activities. Nihon Shoyu Kogyo Co., Ltd. (Kikko Nihon) located in Asahikawa is one example of a soy sauce factory born through this process. Originally the Asahikawa home of Nippon Seishu Co., Ltd., it shifted to soy sauce production after taking shipment of koji mold spores and starter *moromi* from Noda Shoyu Co., Ltd. Records show the first shipment was sent on January 26, 1945. Given the volume of total soy sauce imports from outside Hokkaido at the time was 7,200 kiloliters a year, the company's annual production volume of 3,600 kiloliters was highly significant and indicates the scale of the factory. Nihon Shoyu Kogyo was established through a 6:4 investment by Noda Shoyu Co., Ltd. and Nippon Seishu Co., Ltd. Later after Noda Shoyu became Kikkoman Corporation, it bought all the shareholdings in Nippon Seishu, making Nihon Shoyu Kogyo an associate company in the Kikkoman group. The relationship between these companies is believed to have played a major role in dark Kanto-style *koikuchi* soy sauce becoming the leading style of soy sauce in Hokkaido.

Founded 70 years ago, Nihon Shoyu Kogyo is the oldest soy sauce brewing business in Asahikawa, and its office building has been recognized by an association concerned with the preservation of historic buildings in Asahikawa City for retaining its appearance from the time of establishment. Original compressing equipment and other such facilities also still exist at the factory site, but unfortunately, they are not currently in use. While there is no profit to be gained from these old facilities, I sincerely hope they will be maintained for their historical value.



Nihon Shoyu Kogyo Co., Ltd.

## 3. Hakodate: A Base for Fishery in the Northern Sea

At its peak, there were 28 soy sauce manufacturers in Hakodate, but today there is only one. The city flourished in the 1950s and 1960s as a base for fishery in the northern sea, and this period also represents the busiest production years for the soy sauce makers. The system of fishing in the northern sea consisted of fleets with a mother ship accompanied by multiple fishing vessels.



Northern seas fishing fleet  
(Source: *The New Hokkaido History*)

There were separate fleets for salmon and trout fishing, crab fishing, trawl net fishing, and long-line cod fishing, among others. The New Hokkaido History registration records show that at the peak over 1,000 vessels sailed from Hakodate, including 16 fleets (461 ships) for salmon and trout fishing, and 36 fleets (408 ships) for trawl net fishing. It is said that the fleets purchased such high volumes of soy sauce for their long voyages that the makers could barely keep pace with demand. While this is

a digression from the discussion of soy sauce, apparently when the fleets returned to the port of Hakodate, crewmembers headed straight to Hakodate's entertainment district armed with wads of money they had earned at sea, greeted by signs of "Welcome Northern Sea Fishermen". Changing times mean periods of both growth and decline, and Hakodate became famous as the origin of *ika shiokara*, a dish of squid pickled in salted squid entrails. However, these days, a decline in the squid catch means the dish is now made from imported squid. While visiting the Hakodate soy sauce manufacturer I heard a joke that was funny but slightly disturbing: "According to the Hakodate banks, it is one of the city's seven wonders that the soy sauce manufacturer has not gone bankrupt." I hope it's because it is always anticipating change and finding new fields to develop to keep pace.

#### Mother Ship Fleet Fishing: Fishing Volumes by Type

(Source: *New Hokkaido History*)

Units: 000's of tons

| Type             | 1953 | '54 | '55 | '56 | '57 | '58 | '59 | '60 | '61 | '62 |
|------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Salmon and trout | 14   | 38  | 116 | 92  | 100 | 91  | 70  | 53  | 53  | 44  |
| Crab             | 2    | 2   | 12  | 22  | 21  | 20  | 19  | 19  | 21  | 25  |
| Trawl net        | —    | 12  | 9   | 24  | 24  | 46  | 157 | 456 | 622 | 540 |
| Long-line cod    | —    | —   | 15  | —   | —   | —   | —   | —   | —   | —   |

#### 4. Mentsuyu (noodle soup base) Culture

In 1964, Kikkoman launched a concentrated sauce product called "Menmi", which contained soy sauce, mirin (sweet Japanese cooking wine), and five types of dashi stock extracted from bonito flakes, dried sardines, kombu kelp, mackerel flakes, and scallops. The rich umami flavor made it popular not only as a noodle soup base, but also as a basic seasoning for all kinds of Japanese cuisine, such as rice-based bowl dishes, simmered dishes, hot pots and oden – a stew of vegetables and fish cakes. Today, in Hokkaido, Menmi is used as a substitute for soy sauce in all kinds of simmered dishes and as a dressing for cold tofu, and because it is five times concentrated, it can easily be used as a base for dipping sauces too. Until recently, the best-selling Menmi product was the 1.8 liter container, showing its all-purpose nature as a popular seasoning in Hokkaido. In contrast with other regions of Japan, consumption of soy sauce-based products in Hokkaido, including Menmi, is high. In research into the "Regional Characteristics of Soy Sauce Identified by Analytical and Sensory Properties" by Hiroe Otomo et al., FOOD CULTURE No. 26 published in 2016, Hokkaido was classified as a region consuming primarily soy sauces with subdued saltiness,



Settlers on a farm (end Meiji Period) (Held by University of Hokkaido Library)

with a preference for soy sauces with strong kombu kelp aromas (including processed soy sauce products). Hokkaido's agricultural lands spread through cultivation most often by married couples, meaning most households had two working adults. Hearing that this contributed to the proliferation of Menmi as a simple seasoning sauce that made meal preparation both faster and easier, I believe this in turn created the foundation for the subsequent quick uptake of slightly sweeter seasoning sauces rich in the flavor of dashi by the people of Hokkaido.

#### 5. The Birth of Kombu Soy Sauce

Hokkaido has long been known as a kombu kelp producer, transporting the kelp by *Kitamaebune* cargo ships that traveled up and down the Japan Sea. Even though people had discovered how good food tasted when prepared with soy sauce and kombu stock, there were no pre-mixed kombu stock and soy sauce seasoning products on the market. Hokkaido's *Habomai* fishery cooperative was commissioned by a soy sauce maker on the main island of Honshu to produce a processed soy sauce, *dashi shoyu*, combining kombu stock and soy sauce, which they called "Habomai kombu soy sauce". It was released in 1991 and sales were so good that a Hokkaido soy sauce maker then asked the Hidaka fishery cooperative in Hokkaido to make a similar product, which also sold very well.

One Hokkaido manufacturer started making a kombu soy sauce under its own brand, and competition grew very tight when national soy sauce makers like Kikkoman started making similar products too. Companies now seek ways to differentiate their kombu soy sauce products, including one particularly popular brand that contains kombu root pieces, adding pleasant viscosity to the sauce. A liking for kombu stock-based soy sauce appears to have created a favorable environment in Hokkaido for the uptake of soy sauce products based on other kinds of stock as well. The production of the first-ever kombu soy sauce in Hokkaido several decades ago seems to have served as the forerunner to the current nationwide popularity of combined stock and soy sauce products.

#### 6. Hokkaido's Soy Sauce Factories

Kikkoman Corporation's Hokkaido Subsidiary has its headquarters in Chitose City. I was told the large-scale factory was constructed in 1987 with capacity to produce up to 20,000 kiloliters annually, with the aim of supplying soy sauce to Hokkaido and the Tohoku region using wheat produced in Hokkaido. Since temperatures drop quite low in winter in Hokkaido, the factory brews in indoor fermentation tanks, unlike the company's factories in Noda, Chiba Prefecture and Takasago, Hyogo Prefecture, where outdoor fermentation tanks are used. A special second-floor walkway constructed at the time of the factory's opening allows for a complete view of the





manufacturing process.

Along with Kikkoman, the other major soy sauce manufacturer in Hokkaido today is Sapporo-based Hokkaido Shoyu Company, established in 1974 as the joint venture of ten soy sauce companies (currently owned by four companies). The remaining factories are small-scale, few in number, and primarily produce soy sauce products based on *kiage* raw soy sauce purchased from other manufacturers. Thus, soy sauce production in Hokkaido is centered on the two main companies mentioned above

and their production of *honjozo* regular fermented soy sauce, and not the *kongo shoyu* mixture method products that add

amino acid liquids to raw soy sauce. As mentioned earlier, the use of soy sauce in Hokkaido differs from that of Honshu, the mainland of Japan, because there is a culture of using *mentsuyu* noodle soup bases and kombu soy sauce products instead of straight soy sauce.



Hokkaido Kikkoman Corporation

## The Birth of Usukuchi Soy Sauce and Kinki Soy Sauce

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### 1. The Birth and Development of Tatsuno Soy Sauce

Tatsuno, located in southwestern Hyogo Prefecture, is famous as the origin of *usukuchi* (light-colored) soy sauce. The former castle town of Tatsuno Domain with 53,000 *koku*\* in Harima, one of the oldest provinces in Japan, is called "Little Kyoto of Harima". It is also known as the birthplace of Miki Rofuu, who wrote Japan's best loved children's song *Akatombo*, Red Dragonflies. I thoroughly recommend you visit Tatsuno, the birthplace of *usukuchi* soy sauce, but please note the nearest station is not Tatsuno on the Sanyo Main Line, but rather Hon-Tatsuno on the JR Kishin Line. Head first to Himeji Station and then change



Cherry tree-lined path



Townscape: white walls and a chimney. (Photo provided by Tatsuno City)

for the local train, travelling about 20 minutes before arriving at Hon-Tatsuno. I once visited Tatsuno during the cherry blossom season in April, and I will never forget the wonderful sight of the cherry blossoms at Tatsuno Park.

The conditions for successful soy sauce production have historically been easy procurement of raw materials – soybeans, wheat and salt – a rich water supply, and easy access to water routes for shipping large volumes of the finished product, as the sea was the principal trade route during the Edo Period. Tatsuno was blessed in every sense: quality soybeans were easily obtained from the neighboring town of Sayo; wheat was harvested in the local Western Harima district; high-quality salt from the Seto Inland Sea was brought in from Ako, Hyogo Prefecture; and the Ibo River flowing through the middle of Tatsuno town connects straight to the sea. The quality of the local water meant Tatsuno also flourished as a sake-producing region, with 79 sake breweries in the peak period. There was a wealth of brewing technology and facilities such as

tanks and other equipment that were easily transferred, greatly contributing to the town's success in soy sauce production.

The water of the Ibo River running through Tatsuno is soft water with low iron content, containing only 18.3~23.2 ppm of calcium carbonate and 0.95 ppm of potassium. It is believed that the lack of nutrition in the water meant that unwanted bacteria multiplied before the sake yeast could proliferate. This meant sake spoiled repeatedly, frustrating sake brewers who were keen to try soy sauce brewing instead. I also think that a wealth of assets made it easy for sake brewers to switch to soy sauce brewing.

The soy sauce produced in Tatsuno is said to have been transported down the Ibo River by riverboat to Aboshi, where it was transferred to a vessel bound for Osaka on the inland sea, before being transferred to another riverboat to complete its journey to Kyoto. Around 1700, competition for soy sauce sales in Kyoto was fierce, with approximately 150 local soy sauce brewers. Soy sauce from Bizen, a neighbor of Tatsuno, had already entered the tight Kyoto market, in which retailers preferred to stock local varieties, so when Tatsuno brewers decided to do the same, they established their own wholesalers in Kyoto. They gradually increased their sales volumes, and the outstanding quality of Tatsuno soy sauce earned it such strong recognition in the Kyoto market that it drove Bizen soy sauce out within 20 to 30 years. The backing of Tatsuno Domain hailing Tatsuno soy sauce as a local specialty further strengthened the brewers' position in the Kyoto and Osaka markets.

\* *koku* is a Japanese unit of volume that shows the productivity of the land. Historically, the annual rice tax on farmers was regulated by *koku*, as was the reward from feudal lords to their retainers, meaning *koku* determined how many retainers the lord could employ. *Koku* is still used as a unit of volume among brewers of sake and shoyu. 1 *koku* is approximately 180L or 150kg of rice.



Ibo River

### 2. Tatsuno Usukuchi Soy Sauce

The breakthrough for Tatsuno first came in 1666 with the development of innovative production methods by