

Selections from NDL collections

## Soy beans— bits of bean knowledge: From the small digital exhibition “Kaleidoscope of Books (No.21)”

This is a partial translation of the small digital exhibition “*Soy beans—bits of bean knowledge*” in Japanese.



You found fillet in the bowl? Really?—Read this article for the actual ingredient!

### 1. Introduction

The National Diet Library (NDL) released the 21st small digital exhibition that introduces various information about soy beans.

Although soy beans are produced worldwide today, in some regions, they are not always regarded as food for human beings but as oil seeds or fodder for domestic animals. While Japan is not a major producer in the world market, Japanese people have been familiar and eaten them in their daily lives since ancient times.

This article focuses on some topics illustrating how familiar soy beans are to Japanese people in the daily cuisine, and stories of people who took soy beans all over the world.

### 2. Japanese traditional cuisine with soy beans: Tomorrow’s dinner will be full of beans!

Soy beans are said to have originated in the northern part of China, and were then brought to Japan through the Korean Peninsula. As one of the five kinds of basic grain in Japan, early Japan’s chronicles *Kojiki* (712) and *Nihon shoki* (720) featured soy beans, and those prove that Japanese people have taken soy beans in their daily meals since ancient times.

There are a wide variety of foods made from soy beans; something easy to cook like boiled beans, roasted beans, *edamame*, bean sprouts; seasoning like *miso* and soy sauce; something simply-processed like *natto*, *tofu*, freeze-dried *tofu*, soy bean fiber, a thin type of deep-fried *tofu*, blocks of deep-fried *tofu*, soy milk and its skin, soy bean flour.

This chapter shows some stories of soy beans as food featuring *tofu*, *natto*, soy sauce and *edamame*.

#### 2.1 Tofu: Was Tofu-kozo a yuru-chara in the Edo period?

*Tofu* came from China during the Nara period (8th century), then became common among samurai families and the nobility in the Kamakura period (12-14th century), and finally spread to other people’s daily lives in the Edo period (17-19th century). As *tofu* was cheap, nutritious, and popular, even a *Tofu*-inspired monster was created.

The monster, “*Tofu-kozo*,” was said to look like a five-year-old boy monster with a big head wearing an oversized hat, and carrying a tray with *tofu* on it.



*Tofu-kozo* speaking to somebody. He felt lonely, so he said “Could I accompany you, sir?” Poor *Tofu-kozo*! He was ignored. ([Koikawa, Harumachi (text and illustration).] 1779. *Bakemono shiuchi hyobanki*. [Urokogataya Magobee.] [NDL Call No. 207-1754])



A typical illustration of *Tofu-kozo* bringing a white cubic block of *tofu* on a tray (Kitao, Masayoshi. 1788. *Bakemono chakutocho*. [NDL Call No. 208-500]) \*Available on the [NDL Digital Collections](#)



*Tofu-kozo* depicted when he dropped his *tofu* (Santo, Kyoden. 1792. *Bakemono tsurezuregusa*. [Tsuruya Kiemon.] [NDL Call No. 207-281]) \*Available on the [NDL Digital Collections](#)

One theory says that "*Tofu-kozo*" boy was born during the latter half of the Edo period, when *tofu* sellers were popular, but actually there is no story of his birth. Some say that he was a character for advertising (i.e. *yuru-chara*) by *tofu* sellers.

The oldest source for *Tofu-kozo* is a *kibyoshi* (popular novel with illustrations) published in 1779, *Bakemono shiuchi hyobanki* while Kitao Masami's *Bakemono chakutocho* describes the features well.

Monsters are generally grotesque, but *Tofu-kozo* is depicted as a timid and comical personality who stalked somebody. Another illustration shows that he dropped the important *tofu* when he feared human beings and tried to run away, and that he was bullied by other monsters.

## 2.2 *Natto*: Boiled beans for war-horse feed were metamorphosed?



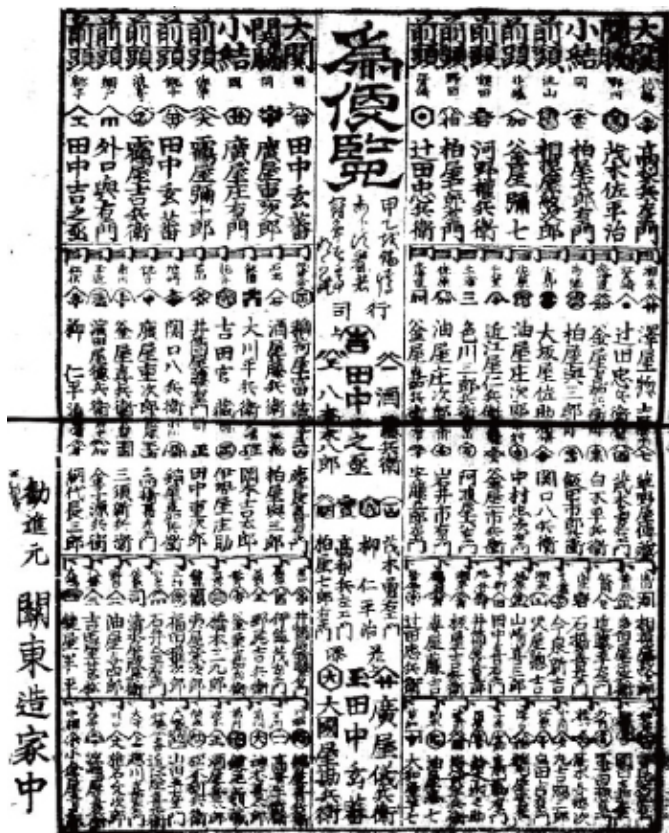
A sketch of a *natto* seller. They came to Edo city every morning. ([Makieshi Genzaburo [et al.] (illustrator).] 1690. *Jinrin kinmo zui*. Heirakuji [and 2 others]. [NDL Call No. 寄別 13-58]) \*Available on the [NDL Digital Collections](#)

Although "*Itohiki natto* (lit. goeey threads *natto*)" made by *natto* bacteria (*Bacillus subtilis*) fermentation is unique to Japan, there are many legends on the unclear origin. "*Hachiman Taro's natto legend*," which was handed down in the areas on route of the MINAMOTO no Yoshiie's

military campaign to the northern part of Honshu island (Earlier Nine Years' War and Later Three Years' War) during the latter half of the 11th century, is one of those legends saying that boiled beans intended for war-horse feed wrapped with straw were metamorphosed into *natto*. They might have smelt terribly and looked gooey. How daring was the person who ate them for the very first time! Or maybe, they were starving and that was why they had to eat such a thing.

### 2.3 Soy sauce: A competition of makers in the Edo period

There are two types of soy sauce; one is the Kansai (Kyoto and Osaka area) origin *usu-kuchi* (lighter-colored), that was used commonly in the Edo period; the other is *koikuchi* (dark-colored) that began to be made in the Noda and Choshi areas (in Chiba prefecture today) and was booming in Edo city. Then *koikuchi* took over in the Kanto area (Tokyo and surrounding areas) in the former half of the 19th century. A Kanto area soy sauce maker *banzuke* (ranking) shows that there were many makers at that time, and that the names of the ancestors of current makers were already known such as MOGI Saheiji (Kikkoman brand), HIROYA Gihee (Yamasa brand), and Tanaka Gemba (Higeta brand)—all of them made *Koikuchi*.



A Kanto area soy sauce maker *banzuke* (ranking) "*Tame binran*" *Edojiman*. [NDL Call No. 199-305]

### 2.4 Edamame: The difference of selling between Edo (Tokyo) and Kyoto/Osaka

*Edamame* is an unripe soy bean picked with a sprig. In spite of its uncertain origin of eating, *edamame* was entered in the picture dictionary *Wakan sansai zue*. 1712. [NDL Call No. 031.2-Te194w-s] (\*Available on the [NDL Digital Collections](#)), and it mentioned the "*kidaizu* (lit. yellow soy bean)," which can be eaten before it ripens.

Additionally, the sixth volume of *Morisada manko* says "In Edo city, it is called *edamame*, as sold with *eda* (sprig). In Kyoto and Osaka, it is called *sayamame*, as sold in the *saya* (pea pod) without sprig."



Sketches of *edamame* sellers in comparison between Edo (Tokyo) (right) and Kyoto/Osaka (left) (Kitagawa, Morisada. *Morisada manko*. [NDL Call No. 寄別 13-41])  
\*Available on the [NDL Digital Collections](#)

### Column: *Modoki* cuisine

Japanese cuisine includes "*Modoki* cuisine," in which vegetables are likened to meat and fish. The *kana-zoshi* book *Kashoki* (early Edo period) shows a surprising episode of meat dishes using pheasant and *tanuki* (Japanese raccoon) at a Buddhist temple (which is supposed to have a vegetarian doctrine), but then it reveals that they were actually all vegetarian cuisine (*Tokugawa bungei ruiju*. *Dai 2* [NDL Call No. 918.5-To426-K]) \*Available on the [NDL Digital Collections](#)). In Japan, it is rather common to use *tofu* for *modoki* cuisine; for example, "*gan-modoki* (lit. foods likened to wild geese)" was made of *tofu*. In "*Ryori monogatari*" included in *Zatsugei soshu*. [NDL Call No. 790.8-Z14-K] (\*Available on the [NDL Digital Collections](#)), "*kiji-yaki* (lit. grilled pheasant)" is shown as a kind of *tofu* dish. *Tofu hyakuchin*. [NDL Call No. 特 1-2131] (\*Available on the [NDL Digital Collections](#)) introduces *modoki* cuisine using *tofu* to resemble animal meats; a pheasant (No. 2), a corbicula (No. 57), a sweetfish (No. 65), a whale (No. 33 in the next volume).

Speaking of soy beans, they are called "meat from the

fields," and there are foods called names like "*Daizu* Meat (also called Soy Meat or Vege Meat)," which is regarded today's "*modoki* cuisine." This recipe book is found in the NDL collection (Kinoshita, Aoi. *Daizu mito de daietto*. [NDL Call No. Y75-J5394]), and a staff member tried cooking *daizu* meat.

The texture was elastic, and when browned, it almost looked like meat. No taste of meat juice was found, but it brought satisfaction even without greasiness. Recently various brands of those foods are found in local supermarkets. How about cooking *daizu* meat for your dinner this evening?



Minced meat type *daizu* meat. The dry form is shown in the left bowl, and once it absorbs hot water, it grows 2-3 times as shown in the right bowl.



This photo shows *nikujaqa*, in which a fillet type of *daizu* meat is used. It is very hard to believe that this is a completely vegetarian dish.

### 3. Soy beans spread overseas

Today, soy beans are gradually being globally accepted as food for human beings; for example, *tofu* is spotlighted as healthy food, *edamame* beans won popularity as an easy and tasty snack, and soy sauce has already gained major status among global seasonings.

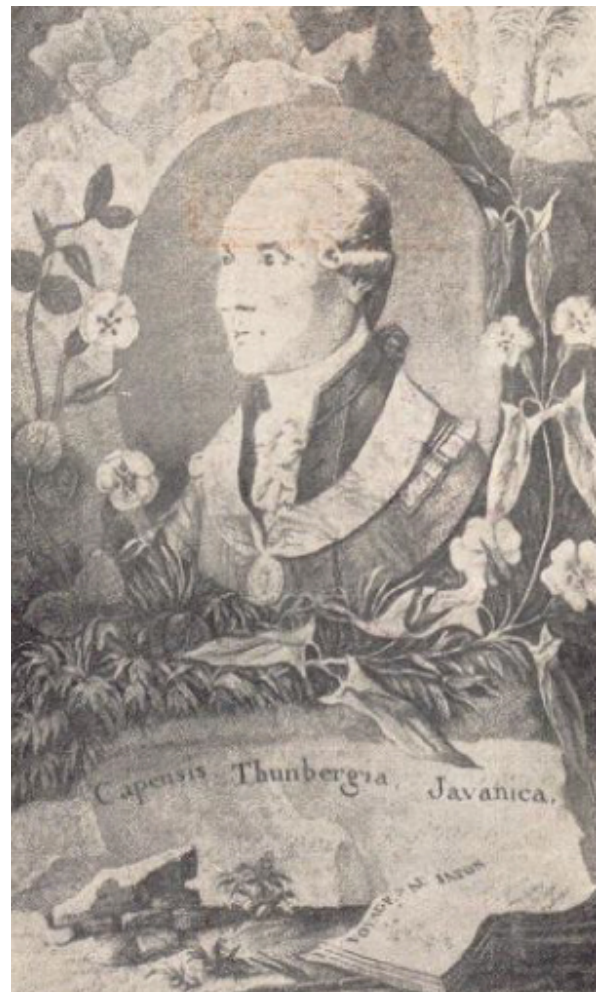
This section shows some stories of people who brought soy beans from Japan to Europe and North America during the Edo and Meiji periods.

#### 3.1 By the three scholars in Dejima

The three celebrated scholars of Japanese Studies in the Edo period—Engelbert Kaempfer (1651-1716), Carl Peter Thunberg (1743-1828), and Philipp Franz von Siebold (1796-1866)—were all medical doctors who were stationed in the Dutch merchant office in Dejima, Nagasaki. They made achievements in botany. Kaempfer was the first person who introduced soy beans to Europe with scientific descriptions in botany. In Volume 5 of the *Amoenitates Exoticae* (1712), he showed findings of the Japanese plant kingdom, and he allocated three pages to introduce soy beans with an entry written both in Kanji characters and the Roman alphabet ([Hathi Trust's digital library](#)).

It is considered that the word "soy bean" comes from the English translation of Thunberg's work, and Siebold named the pure breed of soy beans as "*Glycine Soja*." Both are said to be named after the Japanese word "*shoyu* [lit. soy sauce]."

**3.1.1 Thunberg's travel book (Yamada, Tamaki (translator). 1941. *Tsunberugu nihon kiko*. Okugawa Shobo. [NDL call no.: 291.099-cT53t-Yo])** \*Available in the [NDL Digital Collections](#)



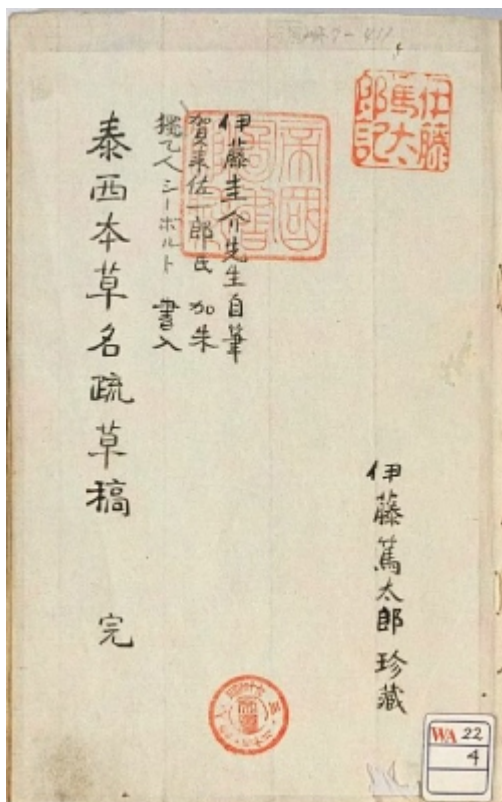
A portrait of Thunberg

The head of the Dutch merchant office in Dejima was required to travel annually to Edo castle and meet the *shogun*, and all three of the scholars accompanied him at one time or another. In 1776, the year after Thunberg's arrival in Japan, he was granted an audience with TOKUGAWA Ieharu, the tenth *shogun* of the Tokugawa shogunate. Although this book was written as a travel book to introduce Japan to Europe, today it is a precious historical material to learn about Japan at that time.

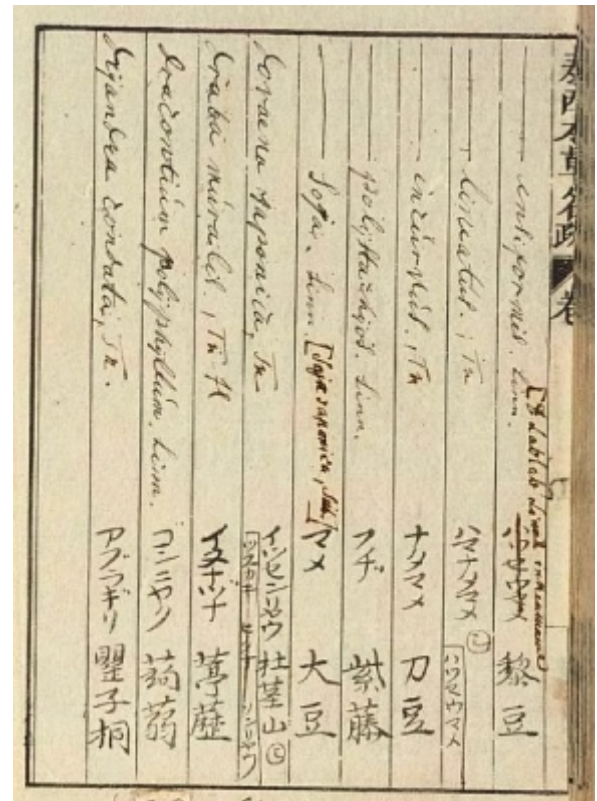
In the chapter on Japanese foods, he mentioned *miso* soup following the part of boiled rice. He discovered the importance of *miso* soup, because the Japanese people eat *miso* soup in every meal all around the year, regardless of the social status or financial ability. He also introduced how to make *miso* from soy beans which described with the old scientific name "*Dolichos soja*."

In the chapter on Japanese crops, he wrote about soy beans as a typical legume, with wide varieties of cooking. Additionally, the chapter on the trade says that a large amount of fine soy sauce produced in Japan was exported to Batavia (now Jakarta in Indonesia), India, and as far as Europe.

### 3.1.2 Translation from Thunberg's work (Thunberg, Karl Peter (author). Ito, Kiyotami (translator). *Taisei honzo meisō*. [NDL Call No. WA22-4]) \*Available in the [NDL Digital Collections](#)



Cover



The entry on soy beans, proofread by Siebold

This is the handwritten translation from Thunberg's work *Flora japonica* [NDL call no.: 別-25] by [ITO Keisuke](#) (1803-1901), Japan's first Doctor of Science. The book *Flora japonica* was a gift from Siebold. Actually it was proofread by Siebold, though, under the impact of the Siebold Incident in 1828, his name was hidden when it was published in the following year.

It contains the same entries as *Flora japonica*, and Ito made transcripts of the scientific names of Japanese plants from Latin to Japanese and Chinese characters, then sorted them in the alphabetical order. Thanks to his work, the European taxonomy of botany was brought popularly to ancient Japanese pharmacologists. Furthermore, he created new Japanese scientific terms that became well-known later by translation for the first time ever: *kafun* (pollen), *obana* (male flower), *mebana* (female flower), *ashibe* (stamen), *meshibe* (pistil).

In the entry on soy beans, first he wrote "*Dolichos Soya*, Linn." and Siebold corrected it as "*Soja Japonica*." Both are scientific names of the soy bean, in fact the former was given by Carl von Linné (1707-1778) called "The father of taxonomy," and the latter was the relatively new one used in the age of Siebold. Today, the scientific name "*Glycine max*" is generally used for soy bean.

### 3.2 By Joseph Heco

In 1765, the time before the foundation of the United States, soy beans were for the first-time-ever brought to the country across the Atlantic from China, while later in

1851, a wrecked ship triggered the fact that they were brought there across the Pacific from Japan, too.



A portrait of Joseph Heco (Amerika Hikoza). 1932. *Amerika hikoza jijoden: Kaikoku isshi*. Guroria Sosaete. [NDL Call No. 289.1-A461a-H]

The ship was called "Eiriki-maru" and in 1851, on its voyage carrying crops including soy beans, it was wrecked off the Kii Peninsula (located in the middle of Honshu Island, south of Kyoto and Osaka). The seventeen crew members were spilt like beans into the sea in the wreck with soy beans, then became drifters for nearly two months, and finally managed to survive when they rescued by a U.S. merchant ship. Soy beans were included in their gifts to the doctor who took care of them during their stay in San Francisco, and that led to soy bean production in Illinois.

On the Eiriki-maru, a thirteen-year-old boy was on board as a crew member. He was HAMADA Hikoza (1837-1897), the first Japanese who gained American citizenship, and who later got to be called Joseph Heco, America Hikoza, or "The father of Newspaper in Japan."

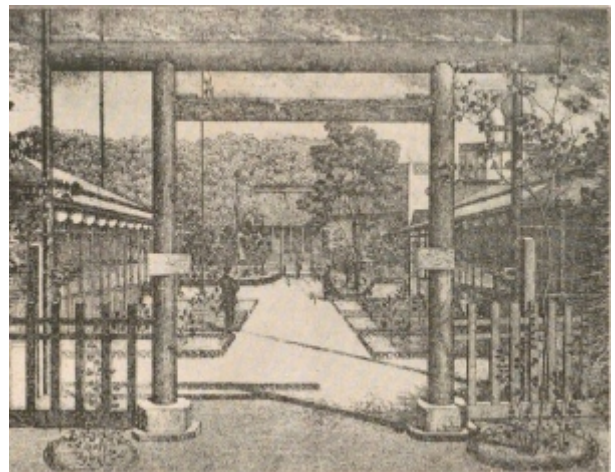
### 3.3 By Matthew Calbraith Perry, Commodore of the U.S. Navy

Matthew Calbraith Perry (1794-1858), who led the *Kurofune* (lit. Black Ships) fleet to Japan, is also known as an importer of soy beans from Japan and contributed to the U.S. soy beans industry.

Primarily, he came to Japan for the negotiations to force

the Tokugawa shogunate to open their ports to U.S. ships, but in fact, another task was scientific researches in Japan, since the second chapter of his fleet activity reports compiled in 1856 was allotted to natural history. In the report of farming, it mentions "the Japan pea," which is estimated to be the soy bean, with an introduction of a kind of Japanese beans used to make famous soy sauce (Francis L. Hawks, Narrative of the expedition of an American squadron to the China seas and Japan, performed in the years 1852, 1853, and 1854, under the Command of Commodore M. C. Perry, United States Navy, by order of the Government of the United States. [NDL Call No. VF5-Y4330]). The gifts from Japan received a few days before the conclusion of the Kanagawa Treaty signed on March 31, 1854, contained "10 bottles of soy sauce." (Perry, Matthew Calbraith (author). Suzuki, Shusaku (translator). *Peruri teitoku nihon enseiki*. [NDL Call No. 291.099-cP46p-S] \*Available on the [NDL Digital Collections](#))

### 3.4 Through International Expositions



Torii (gateway of Shinto shrine) and the inside view of the Japanese exhibition gallery on the site of the Vienna International Exposition (Hakurankai Kurabu). 1928. *Kaigai hakurankai honpo sando shiryō*. Dai 1 shu [NDL Call No. 608-113]

Soy beans are sometimes called “meat from fields,” as they contain plenty of protein, and this phrase does not seem to come from Japan.

There are two theories related to the origin of the phrase. For the Vienna International Exposition in 1873, the Japanese government exhibited various typical Japanese products on the site, as far as built a Shinto shrine, a *torii* (front gate of a Shinto shrine), and a Japanese-style garden. Those exhibits created a great sensation. Soy beans were among those goods from Japan, while the Chinese government also exhibited them as their exhibit at the same time. One theory is that Friedrich Haberlandt (1826-1878), a botanist of the University of Vienna, included them in his research target, then he evaluated them as “meat from fields.” The other theory is that the press from Germany reported this phrase as Germans had already analyzed the ingredients; to the contrary, French people applauded with the phrase “beans like pearls.” (*Daizu geppo*. 132. June 1986. [NDL Call No. Z18-1713])

Although soy beans were not so showy as other exhibits for the International Expositions, the fact that the European people set a high valuation on them and created the phrase that all Japanese people might know today renders a surprise for the history.



Advertisements of soy sauce makers (Hajime Hoshi. *Handbook of Japan and Japanese exhibits at world's fair*, St. Louis, 1904 [NDL Call No. DC51-A55])

In the St. Louis International Exposition in 1904, Japanese soy sauce makers from many areas of Japan placed large-scale advertisements and exhibitions. (*Sentoruisu bankoku hakurankai honpo sando jigyo hokoku*. Vol.2 [NDL Call No. 34-278] \*Available in the [National Diet Library Digital Collections](#))

The English handbook introduces soy sauce as a famous Japanese sauce made from soy beans, and healthy, quite affordable, ideal food. In the latter part of the handbook, advertisements of many soy sauce makers. Their efforts for popularization might have triggered a two-times increase of soy sauce export to the United States in 1906.

Almost 110 years later in 2015, Milano, Italy, hosted an exposition featuring foods including each country's culture and the worldwide food problem. The topic of the Japanese government display was “bean eating culture” to introduce the role of soy beans in Japanese cuisine. As many as 77 soy bean recipes from 16 countries including Japan are shown on the [expo website](#).

Related articles from the National Diet Library Newsletter:

- [Small exhibition in the Kansai-kan \(17\) “Tomorrow's dinner will be a full-course meal: Find the recipe you want to cook”](#) (No. 199, April 2015)
- [Tofu Hyakuchin: A Hundred Delicacies of Tofu—Enjoying taste of Edo](#) (No. 191, October 2013)