

Zanthoxylum piperitum

This article is about Japanese pepper. For Chinese or Szechuan pepper, see Sichuan pepper.

Zanthoxylum piperitum, the **Japanese pepper**,



Fruit and seeds

Japanese pricklyash, or **sanshō** (Japanese: 山椒) is a deciduous aromatic spiny shrub or small tree, belonging to the Rutaceae (citrus and rue) family.^[1] Natural range spans from Hokkaido to Kyushu in Japan,^[2] southern parts of the Korean peninsula,^[3] and Chinese mainland.^[4] The related *Z. schinifolium* (Japanese: イヌザンショウ pron. *inuzanshō*, lit., “dog sansho”) occurs as far south as Yakushima,^[5] attaining a height of 3 meters.^[4]

The plant is important commercially. The pulverized mature fruits (“peppercorns” or “berries”) known as “Japanese pepper” or *kona-zanshō* (Japanese: 粉ざんしょう) are the standard spice for sprinkling on the **broiled eel** (kabayaki unagi) dish. It is also one of the seven main ingredients of the blended spice called *shichimi*, which also contains red chili peppers.^[6]^[7]

It is also a host plant for several of Japan indigenous swallowtail butterfly species, including the common *Papilio xuthus*.

1 Description

The tree blooms in April to May, forming axillary flower clusters, about 5mm, and yellow-green in color. It is dioecious, and the flowers of the male plant can be consumed as *hana-sanshō*, while the female flowers yield berries or peppercorns of about 5mm. For commercial harvesting, thornless varieties called the **Asakura sansho** are widely cultivated.^[4] Around September to October, the berries turn scarlet and burst, scattering the

black seeds within.

The branch grows pairs of sharp thorns, and has odd-pinnately compound leaves, alternately arranged, with 5~9 pairs of ovate leaflets having crenate (slightly serrated) margins.

2 Culinary uses

The finely ground Japanese pepper, *kona-zanshō*, is nowadays usually sold in sealed packets, and individual serving sizes are included inside heat-and-serve broiled eel packages. While red chili pepper is never used on eel, otherwise, in many usages, the Japanese red chili pepper, or the *shichimi* blend of peppers can be used in lieu of Japanese pepper alone, according to taste: e.g., to flavor miso soup, various noodles in broth or dipped in tsuyu, Japanese pickles (tsukemono), teriyaki or fried chicken.

Young leaves and shoots, pronounced *ki no mē*^[6] or *ko no mē*^[4] (Japanese: 木の芽 lit. “tree-bud”) herald the spring season, and often garnish grilled fish and soups. They have a distinctive flavor and is not to the liking of everyone. It is a customary ritual to put a leaf between cupped hands, and clap the hands with a popping sound, this supposedly serving to bring out the aroma.^[6] The young leaves are crushed and blended with miso using pestle and mortar (*suribachi* and *surikogi*) to make a paste, a pesto sauce of sorts,^[8] and then used to make various *aemono* (or “tossed salad”, for lack of a better word). The stereotypical main ingredient for the resultant *kinome-ae* is the fresh harvest of bamboo shoots,^[9] but the sauce may be tossed (or delicately “folded”, to use a pastrymaking term) into sashimi, clams, squid or other vegetable such as *tara-no-me* (*Aralia elata* shoots).

The immature green berries, blanched and salted, are called *ao-zanshō* (lit. “green sansho”). The berries are traditionally simmered into dark-brown *tsukudani*, but nowadays are also available as *shoyu-zuke*, which is just steeped in soy sauce. The berries are also cooked with small fry fish and flavored with soy sauce (*chirimen jako*), a specialty item of Kyoto, since its Mount Kurama outskirts is a renowned growing area of the Japanese pepper.

The thornless variety *Asakura sansho* derives its name from its place of origin, the Asakura district in the now defunct *Yokacho*, integrated into Yabu, Hyōgo.^[3]

Wakayama Prefecture boasts 80% of domestic production.^[10] Aridagawa, Wakayama produces a specialty variety called *budō sanshō* (“grape sansho”), which



Fresh green Japanese pepper in a supermarket in Japan

bears large fruits and clusters, rather like a bunch of grapes.*[10]

2.1 Confections

In central and northeastern Japan, a non-sticky rice-cake type confection called *goheimochi*, which is basted with miso-based paste and grilled, sometimes uses the Japanese pepper as flavor additive to the miso.*[11]*[12] Also being marketed are sansho flavored arare (rice crackers),*[13]*[14] snack foods, and sweet sansho-mochi.*[15]*[16]

2.2 Timber uses

The thick wood of the tree is traditionally made into a gnarled and rough-hewn wooden pestle, to use with the aforementioned suribachi.

3 Pharmaceutical uses

The husks are used medicinally. In traditional Chinese medicine it finds uses similar to the *hua jiao* or Sichuan pepper

In Japanese pharmaceuticals, the mature husks with seeds removed are considered the crude medicine form of *sanshō*. It is an ingredient in bitter tincture. It also contains aromatic oils geraniol, dipentene, citral, etc.*[17]*[18]*[19]

4 See also

- Sichuan pepper

5 Sources

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- [2] Montreal Horticultural Society and Fruit Growers' Association of the Province of Quebec (1876). *First Report of the Fruit Committee*. Montreal: Witness Printing House. p. 25.
- [3] 岡田稔 (1998). "和漢薬の選品 20 : 山椒の選品". *月刊漢方療法* **2** (8): p.p.641–645.
- [4] 奥山, 春季 (Haruki Okuyama) (1969) [1968]. "さんしょう". *世界百科事典* (Heibonsha) **9**: 698–9.
- [5] 川原勝征; 初島住彦 (1876). *屋久島の植物*. Witness Printing House. p. 109.
- [6] Andoh Beisch, p. 47
- [7] Andoh Beisch, p. 47, under shichimi tōgarashi
- [8] Shimbo 2001,p.261 uses this same metaphor
- [9] Shimbo 2001, p.261–, "Bamboo shoots tossed with aromatic sansho leaves (takenoko no kinome-ae)"
- [10] prefectural website:県民の友 8月号 | 和歌山県ホームページ
- [11] "五平餅の作り方". とよた五平餅学会. Retrieved 2011-01-30. shows how-to in Japanese; notes you may add "* sansho, chopped walnuts or peanuts according to taste" .
- [12] 農文協 (2006). 伝承写真館日本の食文化 5 甲信越. 農山漁村文化協会.,p.13. In Inadanithe goheimochi is enjoyed with sansho miso in spring, yuzu mison in autumn.
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- [15] "実生屋の山椒餅". NPO 法人佐川くろがねの会. Retrieved 2011-01-30.
- [16] "餅類". 俵屋吉富. Retrieved 2011-01-30.
- [17] Kimura et al. 1989, p.82
- [18] Hsu, Hong-Yen (1986). *Oriental materia médica: a concise guide*. Oriental Healing Arts Institute. p. 382., ".citral, citronellal, dipentene; (+)-phellandrene, geraniol;(2)pungent substances: sanshool I (a-sanshool), sanshoamide"
- [19] This section translated from Japanese version [Medicinal use: 2004.7.23 (Fri.) 21:04 added by user: Kurayamizaka; Active ingredients: 2004.7.26 (Mon) 07:08 by Kurayamizaka], and lists only the active ingredients stated there.

6 References

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