



Sake Sommelier Association

Sake Foundation
e-Learning course



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Chapter One

History and Culture





Sake Production throughout Japan





Early History



Sake is the traditional rice wine of Japan. It comes in many different varieties, and was first made at least 2,000 years ago. Since then, sake has played an important role in Japanese culture and history.



One theory suggests that the brewing of rice first started in China, along the *Yangtze* River around 4800 BC and was subsequently exported to Japan.

Another theory traces sake brewing back to third century Japan (the late period of the *Jomon* Era) with the advent of wet rice cultivation.

‘KUCHIKAMI NO SAKE’ (“mouth-chewed sake”)

A rice-based alcohol produced using human saliva to break starch down into sugar, enabling fermentation



Heian Period (794-1185)



This is what a sake banquet looked like at the *Heian* court in the 11th century



The courtier in the centre is holding a small sake cup



Kamakura / Muromachi Period (1185-1493)



The birth of modern sake production



Temples and shrines started to produce their own sake, rather than buy from the imperial court brewery organisations



Edo Period (1600-1867)

- *Kanzukuri* (production of sake in winter)
- Sake production in *Nada district in Kobe*
- Rice polished by using power of water



Taru-kaisen

Modern Times (1868 – Present Day)

1923: Enamel tank appeared

1933: *Tategata seimai ki* (Invention of polishing machines, birth of refined sake)

1943: Sake classification system introduced:
TOKKYU (special), *IKKYU* (first) and *NIKYU* (second) classes

1992 onwards: Abolition of sake classification system, and increased production outside Japan in countries such as Brazil, America, Australia and Norway



Sake Culture in Japan

Although the brewing process and availability of sake has changed over the years, sake's importance in Japanese culture has not. From its beginnings sake has been a drink of reverence, family and friendship, and consumed to mark important occasions.



Gifts



Food



Weddings



San-San Kudo

Drinking from the same cup
three times



Kagami-biraki

Bride and groom opening
the top of a sake barrel



New Year

O-toso: Traditional New Year Drink

Various spices are soaked during the night, and then the sake is drunk at room temperature in the morning

It is said to ensure good health and a long life



Japanese Pepper, Cinnamon,
Dried Ginger and Chinese
Bellflower



Lacquer set



Religious Ceremonies

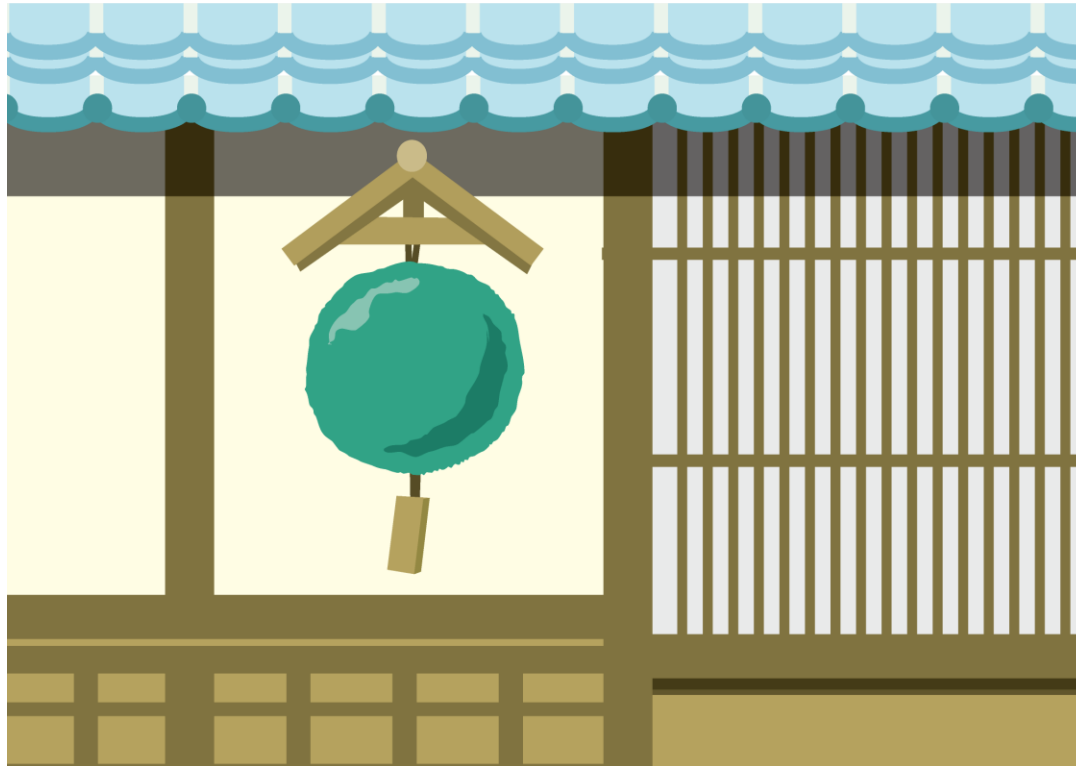


Festivals





Sugidama





A *sugidama* (meaning ‘cedar ball’) consists of a bunch of cedar boughs that have been bound together and then trimmed into a round ball



Sake brewers hang one of these outside their front door, letting the public know that their sake is undergoing production



Also known as *sakabayashi* (酒林), these cedar balls are hung by sake brewers when they are a **fresh green** colour from late autumn to winter, right after they press sake from the new rice harvest



The gradual discolouration of the *sugidama* into a **brown** mass indicates that over time the sake is naturally developing into a more rounded flavour

Quiz

Click the **Quiz** button to edit this object

Chapter One - Multiple Choice Quiz

Answering THREE questions correctly proceeds you to the next chapter. You have unlimited attempts on this quiz.



Chapter Two

Sake Production





Traditional Sake Production Process in Japan

May to March

- Seeded in May
- Harvested in September
- Production starts in October
- Production ends in March



Shiki Jyozo: lit. 'four-season brewing' i.e. brewing all-year round



What is Sake?

Sake is a fermented drink made from these main ingredients:

Rice



Water



Koji





The type of rice used to produce premium sake is known as *sakamai*, and just like grapes there are many different types of sake-specific rice, each with individual styles and aromas



The grains of sake-specific rice are bigger than table rice, providing a greater concentration of starches found in the middle of each grain

Table rice

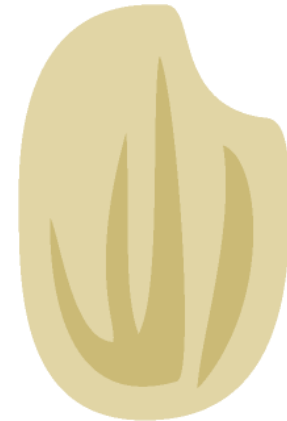


Koshihikari

Sakamai
(sake-specific rice)

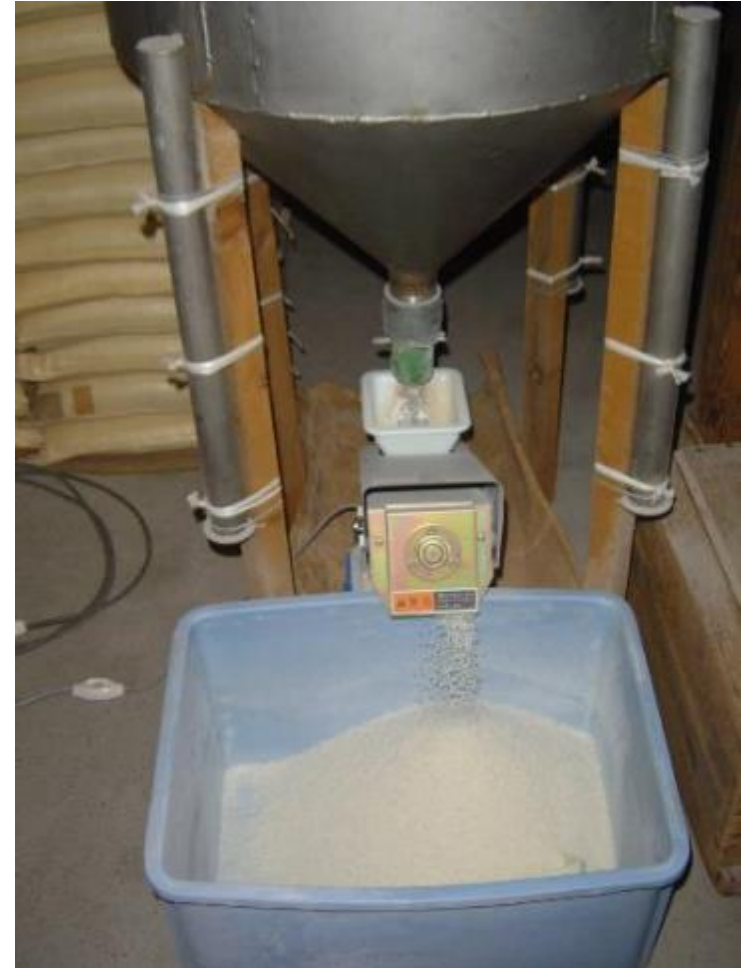


Yamadanishiki



Gohyakumangoku

Examples of sake-specific rice



One of the most important processes in the production of premium sake is the polishing of the rice grains



By polishing the rice, undesirable fat, minerals and protein in the external layer are removed and potentially fatty and bitter tastes in the resulting sake are avoided

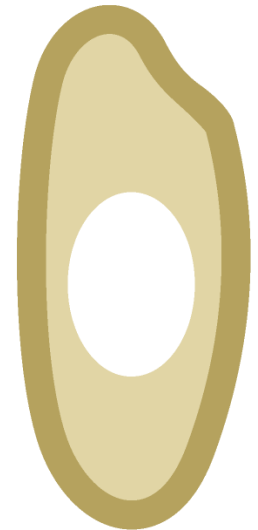
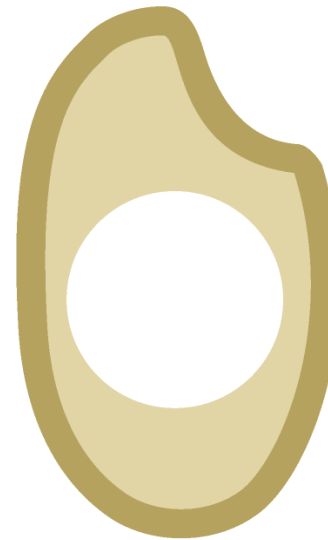
100 %



65 %



30 %



Only the starch-rich centre of each grain (known as the *shinpaku*) remains



The polishing rate of the grain can be varied and this determines the types of the sake



The classification of the type depends on the percentage of the grain remaining after polishing



Sake Designations and Rice Polishing



Highly polished

Futsu-shu – No minimum polishing

Junmai – No minimum polishing (as of 2005) / No added alcohol

Honjozo – 70% of the grain remaining

Ginjo – 60% of the grain remaining

Junmai Ginjo – 60% of the grain remaining / No added alcohol

Daiginjo – 50% of the grain remaining

Junmai Daiginjo – 50% of the grain remaining / No added alcohol



Having decided on the style of sake before polishing the rice, the rice is then:



Washed —————> **Soaked** —————> **Steamed**



Once the rice has been steamed, 20% of the rice is removed and set out on a table in what is called a *koji* room





The *koji* room is built from cedar wood and the interior is maintained at 35 Celsius and 85% humidity





The rice is laid down over a table and a mould called *koji* is sprinkled over it



This process alters the starch molecules into fermentable sugars



The conversion of starch into glucose by the *koji* mould takes two days



This process is called 'saccharification'



The rice crystallises over the two days and is then used for fermentation



Water and yeast are then added to start the fermentation process



During the fermentation process, the *koji* continues to break the starch down into glucose, and the yeast converts the glucose into alcohol

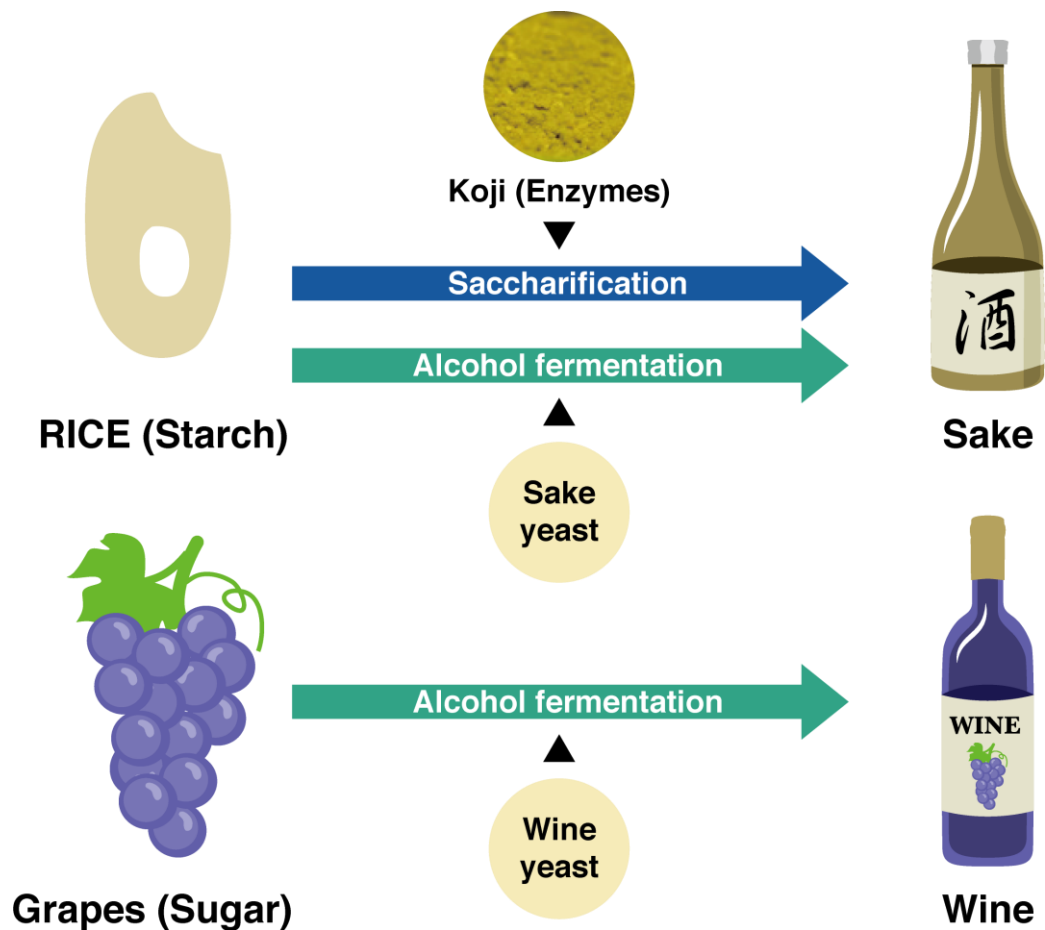


This process is called 'multiple parallel fermentation'



The multiple parallel fermentation process is unique and takes between two weeks to one-and-a-half months to complete





The fermentation process for sake takes longer than it does for wine (8 to 15 days), and at a lower temperature of 11-13°C (11-30°C for wine). This can produce up to five times more amino acids than wine, adding a deeper flavour and creating greater possibilities for pairing sake with food.



At the end of the fermentation process sake will be kept at the alcohol content of approximately 20%



The alcohol content is reduced by adding pure spring water



The Final Steps

Filtration



Bottling



Pasteurisation





Play Video





Additional Sake Information

- The majority of all *Junmai* sake is produced in the way just described, and its average alcohol content is between 12-16%
- In *Ginjo* sake type less than 10% alcohol is added, not to increase the sake's alcohol content but rather to enhance its aromas and flavours
- In general, sake can be kept for up to three years if unopened
- Once opened, sake can be kept for one month if properly chilled

Quiz

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Chapter Two - Multiple Choice Quiz

Answering THREE questions correctly proceeds you to the next chapter. You have unlimited attempts on this quiz.



Chapter Three

Hot/Cold Serving Temperatures





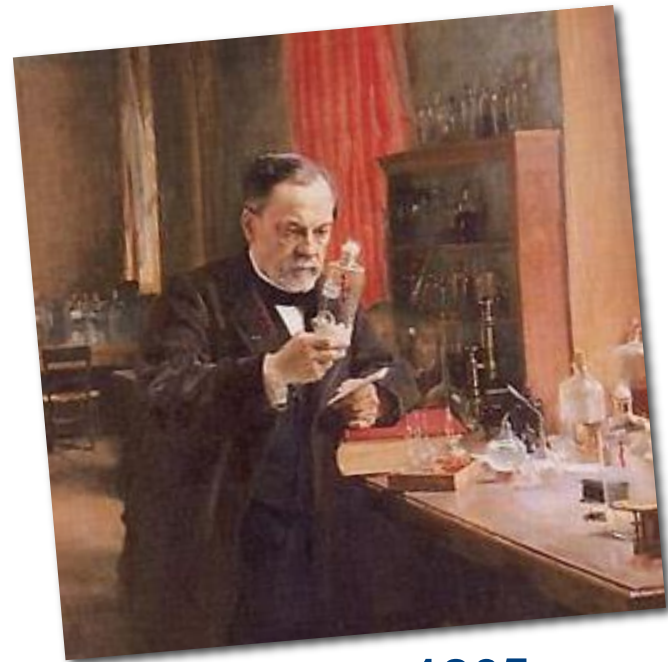
Hot or Cold? A Question of Preference



The origins of warm and cold drinking sake at different temperatures



1569



1865

The introduction of pasteurising sake was the key to hot sake consumption. Interestingly, the use of this process predates Louis Pasteur by nearly three hundred years.



Hot Sake

Hot sake is traditionally served using a *Tokkuri* (*O-choshi*) and *O-choko*





The shape of sake cups (*O-choko*) was inspired by sea shells

One of the reasons why sake cups have kept the same shape without stems is because the kimonos worn by *geisha* who served the sake had long, gaping sleeves that would knock over anything that is taller



Janome

A professional tasting cup that allows one to better judge the clarity of the sake within



A cultural explanation for the small size of the *O-choko*:

The small cups are symbols of the philosophy toward social drinking. It is customary to frequently refill the cup of your companions and let them pour for you in return.





Appreciation of Hot Sake

- As the temperature of the sake increases, the effects of the alcohol and dryness also increase
- Warm drinks are a much better companion to hot foods than cold drinking because they help digestion
- Warm/hot sake is ideal for food such as hot pot (*Nabe*) dishes and oily/fatty foods

Sake is warmed by placing a filled flask in hot water of a saucepan





Cold Sake

The modern drinking way of cold sake emerged after the innovation of rice milling machines in the late 1960s.

Wine also became fashionable in Japan, and many wine-tasting schools opened. As a result, sake and wine were often compared.

Young, innovative brewers also experimented with different methods of sake production in this era, eventually succeeding in making the drink cleaner and finer.





Appreciation of Cold Sake

- Cold sake should be enjoyed between 5-15 Celsius
- An elegant stem wine glass should be used
- With a classic *o-choko* (e.g. *kiriko*)
- Cold sake pairs well not only with *sushi*, *sashimi*, lobster and salmon, but also with asparagus, black truffle and caviar





Sake makes us perceive **flavours** from the palate and independent **aromas** from the nose, whereas in wine the palate confirms the nose.

There are more than 600 aroma components in sake.

On the **nose**, we might smell banana, melon, lychee, apple, peach, rose, steamed rice and sherry

On the **palate**, we might taste notes of citrus, lime, bamboo leaf, plum, black tea, green tea, and even detect some flavours of artichoke, asparagus and meaty flavours





Temperature Classifications of Sake

KAN
(warm)

55°C

TOBIKIRI KAN extremely hot

50°C

ATSU KAN very hot

45°C

JYOU KAN hot

40°C

NURU KAN lukewarm

35°C

HITOHADA KAN body temperature (skin)

30°C

HINATA KAN slightly warm (under the sun)

ROOM TEMPERATURE

15°C

SUZU HIE slightly cold

10°C

HANA BIE cold (cold flower)

5°C

YUKI BIE very cold (snow)

HIYA
(cold)



Click the **Quiz** button to edit this object

Chapter Three - Multiple Choice Quiz

Answering THREE questions correctly proceeds you to the next chapter. You have unlimited attempts on this quiz.



Chapter Four

Sake Vocabulary

本
醸
造

醪

酒
母

純米酒

清酒

純米大吟醸

山田錦

麴米

蔵



Words	Japanese	Translation	Meaning • Description
Amami	甘味	Sweetness	Sweetness; one of five tastes gomi.
Daiginjo	大吟醸		A premium style of sake made with rice having a seimai buai of 50% or less. It is fermented at low temperatures giving pronounced ginjo-ka.
Futsushu	普通酒	Ordinary sake	Ordinary sake. Non-special-designation sake.
Genshu	原酒	Undiluted sake	A special type of sake which has not been diluted with water.
Ginjo	吟醸		A premium style of sake made with rice having a seimai buai of 60% or less. It is fermented at low temperatures giving pronounced ginjo-ka.
Ginjo-ka	吟醸香	Ginjo-aroma	The floral and fruit driven aromas found in ginjo and daiginjo styles of sake.
Hiire	火入れ	Pasteurization	The process of heating sake quickly to roughly 60° C. This heating makes sake shelf stable by killing of any bacteria, yeast or enzymes still active.
Honjozo	本醸造		A premium style of sake made with rice having a seimai buai of 70% or less. A small amount of brewer's alcohol is added to this sake.
Jizake	地酒	Locally brewed sake	
Junmai	純米		Pure sake made using rice, koji, and water, and without the addition of alcohol.
Kakemai	掛米		Steamed sake rice that is added to the main mash (moromi).
Karami	辛味	Dry taste	Dryness; one of five gomi.
Kijoshu	貴醸酒		A special type of sake, which is sweet as result of replacing water with sake during the production process.



Words	Japanese	Translation	Meaning • Description
Kobo	酵母	Yeast	Yeast.
Koji	麹	Koji-rice	Steamed rice inoculated with koji-kin.
Koji-kin	麹菌	Koji mold	The fungus, <i>Aspergillus oryzae</i> used to break down the starch in steamed rice into glucose which can be fermented.
Koshu	古酒	Aged sake	Literally 'old sake', meaning sake that has aged or matured.
Kura	蔵	Sake brewery	A sake brewery also called as sakagura. A kuramoto蔵元 is the president of the brewery.
Moromi	醪	Fermentation mash	The main fermentation mixture comprising rice, water, koji, and shubo (also know as moto).
Namazake	生酒	Fresh sake	Unpasteurised sake.
Nigorizake	にごり酒	Cloudy sake	Sake which has been lightly filtered.
O-choko	お猪口		A small cup used for drinking sake. It is often ceramic but can also be made of glass, wood or tin
Sanmi	酸味	Acidity	Acidity; one of five gomi.
Seimai buai	精米歩合	The polishing ratio	The polishing rate of sakamai expressed as percentage of the grain remaining.
Seishu	清酒		The legal term for sake. It must be made from rice and filtered.
Shibumi	渋味	Astringency	Astringency; one of five gomi.
Shinpaku	心白		The starch-rich centre of sakamai.
Sugidama	杉玉	Ceder ball	A traditional symbol signalling that sake is in production. It is a bunch of cedar boughs in the shape of a ball that is usually hung outside the door of a kura.
Toji	杜氏	Brewery master	The head brewer at a kura responsible for all aspects of production as well as the kurabito.
Tokkuri	徳利		A vessel used to serve warm sake, which is generally ceramic.
Tokubetsu	特別	Special	Tokubetsu means "special". It is a designation that a special production process was applied to a Junmai or Honjozo grade sake. Usually, it means that a lower milling rate than required was used.
Umami	旨味		Savoury taste



Chapter Five

Exam



Quiz

Click the **Quiz** button to edit this object

Chapter Five - Multiple Choice Exam

Answering TEN questions correctly will result in a PASS grade. Failure will result in another set of similar questions for you to try again.

Quiz

Click the **Quiz** button to edit this object

Chapter Five - Multiple Choice Exam

Answering TEN questions correctly will result in a PASS grade.



CONGRATULATIONS!

You have successfully passed the exam!

The Sake Sommelier Association will now issue you a certificate, so please check your name and postal address again before submitting your details.



NEXT STEPS

Sake Sommelier Association runs many levels of sake education courses around the world. Your next step will be Certified Sake Sommelier. Please find further information on this course here:

<http://sakesommelieracademy.com/courses/certified-sake-sommelier/>

We are looking forward to seeing you in the classroom!



Please drink responsibly!