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Glossary of Terms on Sake Bottle Labels

Edited by the National Research Institute of Brewing,
an Independent Administrative Institution
3-7-1, Kagamiyama, Higashihiroshima, Hiroshima, 739-0046, JAPAN
TEL: +81-82-420-0800 FAX: +81-82-420-0802
<http://www.nrib.go.jp/>

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Glossary of Terms on Sake Bottle Labels

A Guide to Selecting
Flavorful Sake



What is written on sake bottle labels?

Japanese regulations require that points ① thru ⑨ below must be printed on the labels of sake bottles.

① Alcohol content

アルコール分
16.0度以上
17.0度未満

② Raw ingredients (as a rule, it is not necessary to list water)

原材料名
米(国産)
米こうじ(国産米)
醸造アルコール
精米歩合 60%

③ Seimai-buai (Degree of rice polishing)

④ Variety of raw rice and locations grown

山田錦
(兵庫県産 100%)

⑤ Product name (e.g.: Both 日本酒 (nihonshu) and 清酒 (seishu) are correct Japanese terms for sake.)

清酒
720ml

⑥ Net volume

⑦ Date produced

製造年月
23. 3

⑧ Name and address of the brewery

酒類総合研究所
広島県東広島市鏡山3-7-1

未成年者の飲酒は法律で禁止されています

⑨ Caution: not to be sold to or consumed by minors

⑩ Specific designations (ginjo, junmai, or honjozo)

⑩ thru ⑫ are only listed when required by regulation. Additional information is also specified, including the number of years aged, the quality, and the use of organic rice.

⑪ Sake brewing location

東広島市の酒
樽酒

⑫ Characteristics of the sake (i.e. 原酒 (genshu), 生酒 (namazake), 生貯蔵酒 (nama-chozo-shu), 生一本 (ki-ippou), 樽酒 (taruzake))

⑬ Manufacturer's proprietary rating category

上撰

Some sake bottles have another label on the back of the bottle. It will include more information about the product and other information about quality.

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製品の特徴

- 酒造好適米を贅沢に使いました
- 伝統の生もとを採用、手造りにこだわりました
- 旨味に富んだ辛口本醸造酒です

原料米	山田錦	精米歩合	60%
-----	-----	------	-----

使用酵母	協会 701号
------	---------

成分	日本酒度	+5
	酸度	1.6
	アミノ酸度	1.6

甘辛

甘口	やや甘口	やや辛口	辛口
----	------	------	----

おすすめの飲み方

冷やして	室温	ぬる燗	熱燗
△	○	◎	○

酒類総合研究所

広島県東広島市鏡山3-7-1



This booklet includes terms that are often used on sake labels in order to provide aids so the consumer can choose wisely when selecting a bottle of sake.

Sake bottle label terminology

Raw ingredients

Shuzo kotekimai (酒造好適米)

Types of rice that are very good for brewing sake. These types have larger grains than the ordinary rice eaten by the Japanese. Normally, rice has an internal core called *Shinpaku* which contains lots of starch. Among these varieties, *Yamadanishiki* may be the most popular. But these days, new types of sake rice are being developed and older types are being revived in many areas of Japan. In 2010, at least 95 different types of rice for brewing sake were being grown in Japan.

Shinpaku (心白)

The opaque white core of a rice grain. Rice with a *shinpaku* is preferable for producing excellent sake.



Yamadanishiki (山田錦)

The most popular sake rice. Especially suitable for producing delicious and very fragrant *daiginjo-shu*. Designated in 1936.

Gohyakumangoku (五百万石)

A famous sake rice from Niigata prefecture and from the Hokuriku districts. Designated in 1957.

Miyamanishiki (美山錦)

This rice is grown in the northern part of Japan because it is hardy and survives cold climates. Designated in 1978.

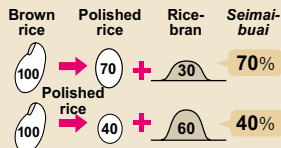
Omachi (雄町)

One of the oldest sake rice varieties, and still very popular, as it produces a specific sake having a rounded flavor. Designated in 1924.

Seimai-buai (精米歩合)

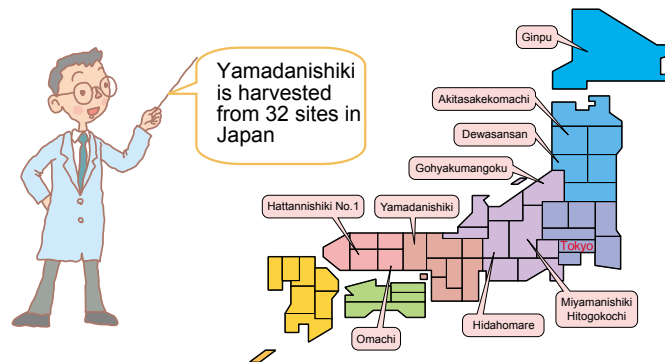
Degree of polishing

A figure that expresses the percentage of polished rice (in weight) relative to the brown rice (unpolished). For example, *seimai-buai* 40% means 40 kg of polished rice is derived from 100 kg of brown rice.



From left to right, brown rice, polished rice with a 70% *seimai-buai* and polished rice with a 40% *seimai-buai*.

The major sites where sake rice is grown



The top 3 sake rice varieties in 2012, by amount listed during agricultural product inspections

Name	Main harvested site	Reported inspection amounts (tons)
1 Yamadanishiki	Hyogo, Okayama, Fukuoka and elsewhere	21,158
2 Gohyakumangoku	Niigata, Toyama, Fukui and elsewhere	18,345
3 Miyamanishiki	Nagano, Akita, Yamagata and elsewhere	6,049

Source: Agriculture, Forestry, and Fisheries Ministry: The results of agricultural product inspections of rice in 2012 (April 25, 2012 to March, 2013)

Q What is the best way to store sake at home?



A *Namazake* (page 9) should be kept in the refrigerator and consumed as soon as possible. Heat-pasteurized sake should be kept in a cool, dark place. Once opened, sake will be oxidized and its quality will be reduced. We recommend storing a bottle of sake in the refrigerator once it has been opened.



Koji mai (麹米)

Rice from which *koji* is made.

Kake mai (掛米)

A term paired with *koji mai*. *Kake mai* is added to *shubo* or *moromi* (page 11) after being steamed.

Koji (麹)

Koji is steamed rice inoculated with *koji* mold. This mold's enzymes convert the rice starch to sugar, which is food for the *kobo* (sake yeast) (page 11).



Jozo-alcohol (醸造アルコール)

Distilled alcohol, fermented from sugar cane, is used to adjust the flavor of sake in some cases.

Raw ingredients

Date produced

Constituents

We are the yeast responsible for producing *jozo-alcohol*.



Date produced

Seizo nengetsu (製造年月)

Date produced

In principle, the month and year the sake is bottled should be indicated.

Constituents

Alcohol content

Indicates the number of milliliters of alcohol in 100 milliliters of sake.

Nihonshu-do (日本酒度)

Sake meter value

Provides an easy indicator of the sweetness or dryness of sake as a number (positive numbers (+) mean dry and negative numbers (-) mean sweet).

San-do (酸度)

Acidity

Acidity makes sake taste strong, which masks its sweetness. This element of sake's flavor is as important as *nihonshu-do*.

Aminosan-do (アミノ酸度)

Amino acid value

Sake with more amino acids tastes richer, with less amino acids tastes lighter.

Nihonshu-do and sweetness/dryness of sake

Nihonshu-do is unique measure to indicate the specific gravity of the sake and is specified by the Measurement Law. If the sake at 15°C weighs the same as water at 4°C, its *nihonshu-do* is 0; a lighter specific gravity is indicated by a + (plus), a heavier one is indicated by a - (minus). Heavier sake contains more sugar, thus - sake is sweet. On the other hand, + sake is dry. However, the alcohol content will change the specific gravity, so we must also note the alcohol

content of the sake question. Moreover, the acid content will mask the sweetness, which indicates the acidity or the dryness. It is difficult to identify sweet/dry only by the *nihonshu-do*. There is another index to indicate the sweet/dry balance of sake, by calculating the *nihonshu-do* and *sando* (acidity), or the amount of glucose in the sake and its acidity.



$$\text{Nihonshu-do} = ([1 / \text{Specific gravity}] - 1) \times 1443$$

The specific gravity of the sake in question is measured on a scale weighing the same amount of water at 4°C and sake at 15°C.

The constituents of sake (on average)

	Ordinary sake	Ginjo-shu	Junmai-shu	Honjozo-shu
Number of samples analyzed	543	489	462	462
Alcohol content	15.4	15.9	15.5	15.5
<i>Nihonshu-do</i>	+3.8	+4.6	+4.1	+5.0
<i>San-do</i> (acidity)	1.2	1.3	1.5	1.3
<i>Aminosan-do</i> (amino acid value)	1.3	1.3	1.6	1.4

Data: All-Japan market sake study by the National Tax Agency, in 2009

Tokutei meisho

Tokutei meisho (特定名称)

Specific designation

(*Ginjo-shu*, *junmai-shu*, *honjozo-shu*)

The classification system determined by the National Tax Agency designates sake as *ginjo-shu*, *junmai-shu*, or *honjozo-shu*. The standards for categorizing sake into these classifications are shown in the table on page 10. These are the standards specified by the Japanese government.

Ginjo-shu (吟醸酒)

Sake brewed from highly polished rice and fermented at a low temperature for a long time. Since *ginjo-shu* was brewed by expert brewers with vast knowledge and experience, it was considered the epitome of the 'Art of Sake' and was rarely marketed in the past. Its distinctive characteristics are its aroma, fruitiness and delicate flavor. Best served chilled to retain its flavor.

Junmai-shu (純米酒)

Made simply from rice and *koji* (page 5). Each product has its own unique rich flavor. Can be enjoyed in various ways; *Kan* (warm sake: page 13), chilled, on the rocks, or mixed with hot water.

Honjozo-shu (本醸造酒)

An amount of *jozo-alcohol* is added before filtering the *moromi* mash (page 13) to create a smoother and lighter flavor. It is delicious served *kan* (warm sake), for example.

Grades

Josen (上撰)

A commonly used category to identify the grade of sake that might have been equivalent to *ikkyu* (first class) in the past.

Types and characteristics of sake

Shinshu (新酒)

Sake brewed during the current year. It has fresh flavor and aroma.

Koshu (古酒)

Sake brewed during previous seasons or in the past. It has a mature flavor and smooth quality.

Chouki-chozo-shu (長期貯蔵酒)

Matured sake stored for a long time. Years ago, it was believed that sake should not be stored for a long time. However, the brewing process has been improved, thus producing a new variety of sake. Now brewers maintain their matured sake can come in various types with different tastes and qualities.

Genshu (原酒)

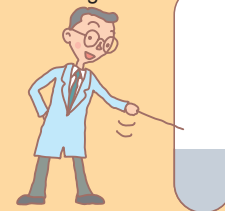
Undiluted sake

Genshu will have a high alcohol content and a strong flavor because no water was added after it was pressed. To serve, hot or cold water may be added.

! Sake used to be classified *tokkyu* (special class), *ikkyu* (first class) or *nikkyu* (second class). These classifications were abolished in 1992 due to an amendment of the tax law. Because customers could not identify the grades of sake easily, sake brewers then introduced new categories. *Tokusen* / *josen* / *kasen* are the most popular categorizations, but there are some unique ones; e.g. gold xx / silver xx, black xx/blue xx.

Measuring *Nihonshu-do*

Nihonshu-do is measured by floating a hydrometer in sake at 15°C, as shown in the figure at the right.



Q

Should we buy the most recently bottled sake according to the bottling month on the label?



A You don't need to worry about the month it was bottled. Under general conditions, the quality of pasteurized sake is not affected during the first 3 months. On the other hand, *namazake* with the most recent date is preferable, as with beer.

Tezukuri (手造り)

Hand-crafted

Junmai-shu or *honjozo-shu* is brewed in a traditional method.

Namazake (生酒生酒)

Nama-chozo-shu (生貯蔵酒)

Namazume-shu (生詰酒)

Sake is usually pasteurized twice before being marketed (before and after bottling). *Namazake* is not pasteurized. *Nama-chozo-shu* and *namazume-shu* are only pasteurized once either after or before maturation, respectively. These 3 types of sake have a fresh aroma and are best served chilled.



Kijo-shu (貴醸酒)

This sake was invented by the National Research Institute of Brewing. This term was derived from an ancient Japanese book, *Engishiki*, in which they recorded a unique mixing process, *Shiori*, using sake instead of water. There are different varieties, such as aged sake, *namazake*, etc.

Ki-ippou (生一本)

This term refers to *junmai-shu* that is brewed at only one brewery.

Taruzake (樽酒)

Cask sake

When sake is stored in a cedar cask, it develops its own special aroma. This improves the sake's flavor.

Hiya-oroshi (冷やおろし)

This is an old way of selling *namazume-shu*. It refers to sake that was pasteurized once (after brewing), matured until the following autumn, then bottled without pasteurization. This type of sake is usually stored in a refrigerator at the shop to preserve its quality, but it is best served at room temperature.

Nigorizake (にごり酒)

Nigorizake is a cloudy sake produced by *moromi* (page 13) filtered through a coarse cloth. In the past, it was not pasteurized and contained living yeast but recently it has come to be pasteurized to preserve its quality.



Tokutei meisho and their specifications

Designation	Materials used ^{*1, *2}	Seimai-buai ^{*3}	% koji rice	Other features, including flavor ^{*4}
Ginjo-shu (吟醸酒)	Rice, koji, Jozo-alcohol	Up to 60%	15% or more	<i>Ginjo-zukuri</i> method, characteristic flavor, high clarity
Daiginjo-shu (大吟醸酒)	Rice, koji, Jozo-alcohol	Up to 50%	15% or more	<i>Ginjo-zukuri</i> method, characteristic flavor, best clarity
Junmai-shu (純米酒)	Rice, koji	--	15% or more	Good flavor, high clarity
Junmai-ginjo-shu (純米吟醸酒)	Rice, koji	Up to 60%	15% or more	<i>Ginjo-zukuri</i> method, characteristic flavor, high clarity
Junmai-daiginjo-shu (純米大吟醸酒)	Rice, koji	Up to 50%	15% or more	<i>Ginjo-zukuri</i> method, characteristic flavor, best clarity
Tokubetsu-junmai-shu (特別純米酒)	Rice, koji	Up to 60%, or specially processed	15% or more	Good flavor, best clarity
Honjozo-shu (本醸造酒)	Rice, koji, Jozo-alcohol	Up to 70%	15% or more	Good flavor, high clarity
Tokubetsu-honjozo-shu (特別本醸造酒)	Rice, koji, Jozo-alcohol	Up to 60%, or specially processed	15% or more	Good flavor, best clarity

*1. The rice quality should be level 3 or better as determined during the agricultural produce inspection.

*2. There should be no more than 10% *jozo-alcohol* relative to the rice by weight.

*3. Label must indicate *seimai-buai*, according to the sake regulations.

*4. There is no clear definition of the *ginjo-zukuri* method. However, it usually means the process of using low *seimai-buai* rice and fermenting at a low temperature to create the characteristic fragrance.

Q Why is jozo-alcohol ever blended into premium daiginjo-shu?



A The *jozo-alcohol* is added to enhance the flavor. In particular, when *jozo-alcohol* is added to *ginjo-shu*, it heightens the flavor. In the National New Sake Awards in 2009, approximately 92% of the 920 entries contained *jozo-alcohol*.



Terms used for manufacturing sake

Shubo (酒母) Seed mash

In Japanese, *shubo* means 'mother of sake.' It is also called *moto*. *Shubo* is a yeast mash made from a nutritious mixture of rice, *koji* and water. It looks like *moromi* (page 13) but *shubo* has a strong sour taste and *moromi* does not. The sake yeast is tolerant of acidity, thus increasing the sake's yeast content. Undesirable bacteria cannot survive in *shubo* acidity.

Ki-moto method (生酛)

A traditional method of making *shubo*. Lactic acid is derived from lactobacilli, over a long period of time and through the attentive care of the brewers. This assists in increasing the sake's yeast content. This starter contains a lot of amino acid and is helpful in producing a dry sake with a rich flavor.

Yamahai-moto method (山廃酛)

The laborsaving *ki-moto* method was developed in the Meiji era (1868-1912). This method omits the troublesome process called *yamaoroshi* (page 12). Yet the finish and *kobo* characteristics resulting from the *yamahai-moto* method are the same as those from the *ki-moto* method.

Sokujo-moto method (速酛酛)

This method was also developed in the Meiji era (1868-1912). Lactic acid is produced during the previous methods, but in this method, lactic acid is added, thus shortening the production time. These days, this is one of the most popular methods, as it can produce any type of sake.

Kobo (酵母)

A yeast, called *Sacchromyces cerevisiae*, converts sugar to alcohol in the process of sake brewing. Both the Latin word *cerevisiae* and Japanese term *kobo* mean 'mother of fermentation.' There are over 700 species of wild and domesticated yeast but most of them have nothing to do with sake brewing. *S. cerevisiae* is 5 to 10 µm in size and is milky white and egg shaped. This yeast is used for producing sake and is cultured by human beings.

Kyokai-kobo (協会酵母)

Yeast strain distributed by the 'Brewing Society of Japan.' In the Meiji era (1868-1912), after the distribution of *kyokai-kobo* was started, the quality of sake improved dramatically at breweries that previously did not have yeast that performed well.

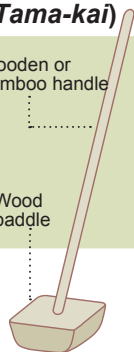
Yamaoroshi One step in making *shubo*

In the traditional method of making *shubo*, brewers had to mash the rice and *koji* together well for better fermentation. They put steamed rice, *koji* and water in a shallow barrel. After the mixture had cooled down for 15 to 20 hours, it was mashed with a tool called *kabura kai*. This *yamaoroshi* process required patience and manpower, and was very strenuous work performed in the winter during the very cold night hours.

Kabura-kai (Tama-kai)

Wooden or
bamboo handle

Wood
paddle



Moromi (もろみ)

The main mash

Moromi is a mixture of *shubo*, *koji*, steamed rice and water. In a tank, rice starch is converted to sugar and fermentation occurs. Well-fermented *moromi* is filtered and the collected liquid is sake.

Kasu-buai (粕歩合)

Indicates how much sake cake remains after the sake has been filtered from the *moromi*. For example, from 100 kg of sake rice, a *kasu-buai* of 25% indicates there is 25 kg of remaining residue. For the *josen* class, the *kasu-buai* percentage may be 30% or less. For the *daiginjo-shu* class, the *kasu-buai* percentage is usually from 50 to 60%.

Orisage (漉下げ)

Removing the sediment

Sake sometimes loses its clarity during a long period of storage. This is because protein in the sake precipitates out as sediment. To remove this sediment, brewers traditionally use some kind of remover such as persimmon juice tannin. This process is referred to '*orisage*' and often used for other *jozo-shu*, as well.

Other terms

Kasseitan (活性炭)

Activated carbon

To stabilize quality, brewers sometimes add *kasseitan* (powdered activated carbon) to sake. Activated carbon absorbs the impurities and is then filtered out. Each brewery has its own method of using activated carbon, which controls its own particular sake characteristics.

Kan (燗): Warm sake

Kan is the traditional way to drink sake. It is normally heated to around 42 to 45°C.

Kuramoto (蔵元) / *Toji* (杜氏)

Kuramoto refers to the brewery or the brewery owner. *Toji* means an expert in sake brewing (as a brew master is for beer) and a *toji* is regarded as the leader of the brewery workers.

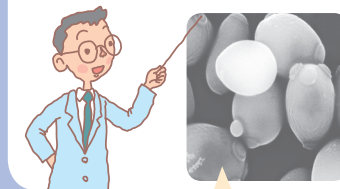
National New Sake Awards

(全国新酒鑑評会)

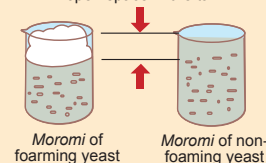
This is the biggest competition in Japan for *ginjo-shu* produced during the previous winter season. It was started in 1911. The contest is now held jointly once a year by the 'National Research Institute of Brewing' and the 'Japan Sake and Shochu Makers Association'. Each brewery is allowed to send only one *ginjo-shu* to the exhibition. Gold prizes are awarded to excellent sakes. There were 920 entries from all over Japan in 2009.

The major *kyokai-kobo* (sake yeast strains) and their features

Varieties	Characteristics
Foaming yeast	No. 6 Strong in fermentation, produces a mellow flavor, and is suitable for creating a light taste.
	No. 7 Vivacious flavor, suitable for producing <i>ginjo-shu</i> and ordinary sake
	No. 9 Vivacious flavor and fruity aroma of <i>ginjo-shu</i>
	No. 10 Low acidity, and notably fruity aroma of <i>ginjo-shu</i>
	No. 11 Low amino acid content
Non-foaming yeast	No. 14 <i>Kanazawa kobo</i> : Low acidity, suitable for producing <i>ginjo-shu</i> .
	No. 601 Same as No. 6
	No. 701 Same as No. 7
	No. 901 Same as No. 9
	No. 1001 Same as No. 10
	No. 1401 Same as No. 14
	No. 1501 <i>Akita type, Hana kobo</i> AK-1: Low acidity and suitable for producing <i>ginjo-shu</i> with a fruity aroma.
	No. 1801 Mild and tasty, with lively aroma, suitable for making <i>ginjo-shu</i> .



Non-foaming yeast leaves more open space in the tank.



Non-foaming yeast

After starting *moromi*, most sake yeast foams for 4 to 10 days. One of the good points about using a non-foaming yeast is that workmen are relieved of the hard task of removing the foam, thus easily providing more space available in the tank for making sake. Furthermore, they do not need to worry about *moromi* causing an overflow from a tank because of active fermentation of the *kobo*. Non-foaming yeasts are new types bred by the National Research Institute of Brewing.