

JOHIN'NA

Sake Guide



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What is Sake?

Sake has two millennia of history behind it. This traditional Japanese brew has become as synonymous with Japan as beer is to Germany. In Japan, it's not just a drink; it's a source of national pride. Sake is deeply entrenched within both ancient and modern Japanese culture & tradition.

Although sake isn't unknown in the Western world, plenty of misinformation surrounds it.

Technically, sake is the Japanese term for all alcoholic beverages. It includes everything from beer & wine to local brews like *shochu* and what English speakers lovingly call sake.

What we've labelled as **sake** is named **nihonshu** in Japanese. The term **sake**- roughly translates to "Japanese alcohol." In this guide the term sake and nihonshu will be used interchangeably signifying the same beverage. During service "sake" will be the term we use with guests.

A common misconception about sake is that it's essentially "rice wine." **Sake's alcohol content tends to be fairly close to that of wine, but its production process is much closer to that of beer.** Plus, both beverages are made from grains, **and sake makers are called brewers, not vintners.** Well then, you ask, isn't whiskey made from grain? Indeed it is, but whiskey is distilled and sake is not.

As far as composition, sake is pretty simple. Its components are basically; water, yeast, koji, rice, and in some cases, distilled alcohol.

Water (*shuzo-yosui* = water used in sake production)

The quality of water used for sake production greatly affects the flavor of sake. For a head sake brewer (toji), water is, along with rice, one of the most important elements. Many sake breweries are located close to mountain streams and underground springs.

The mineral content and quality of the water source has a notable effect, not just on the taste, but on the sake-brewing process in general.

Sake's unique character comes largely from water, which makes up about 80% of the brew and influences everything from taste to texture. It's not just some filler (*although brewers do often dilute their product before bottling*). It is a key player throughout the entire sake-making process, used for washing and soaking the rice, the main brewing stage, and even for tweaking the final alcohol level and getting it ready for the bottle. In fact, brewers use anywhere from 20 to 50 times the weight of a batch's rice in water!

Average rainfall in Japan is about 60 inches per year, leading to bountiful snowfalls. Which melt slowly to seep deeply into the ground, and later welled for use in sake brewing. (snow melt sakes are always a fun story to talk about with guest 😊)



What is Sake?

Water (*shuzo-yosui*) continued pt II

Hard Water vs. Soft Water

Japan's water is soft compared to the rest of the world. Hardness of water is measured by the level of calcium and magnesium in 1000 milliliter of water in the form of calcium carbonate. Regional sake produce flavors unique in that area, stemming from natural balance of the compounds found in the local water. (*think: terroir*)

3 most famous water sources: Miyamizu from Nada region of Hyogo Prefecture.
Gokosui from Fushimi region of Kyoto Prefecture.
Fukuryusui from Mt. Fuji.

Sake is 80% Water - Learn the Difference between Soft and Hard Water, and How It Affects the Taste | SAKE Street | Learn about Sake

<https://sakestreet.com/en/media/learn-water-used-for-sake>
Or, use the QR code here



Yeast

Much like with beer, the type of yeast used will change the flavor and, especially, the aroma of the sake.

Yeast 酵母 is essential to the sake brewing process (*as it is with other alcoholic beverages*). It converts the sugars created by the koji into alcohol and carbon dioxide.

Koji

Koji - 麹

While the rest of the ingredients of sake are straight-forward, koji tends to trip up sake beginners. Koji, also known by its scientific name ***aspergillus oryzae***, **is a special mold**. Koji helps break the rice starches into sugars to prepare for fermentation.

As important as both water and rice are for brewing sake, the sake production process can't get off the ground without koji.

The quality of koji also affects the sake's flavor profile immensely. That's why sake brewers take koji production (*seigiku*) itself so seriously.



What is Sake?

Rice

Before getting into the varieties used specifically for sake making, I want to quickly distinguish the *three broad categories of rice grown around the world*.

Indica, the long-grain variety. It's cultivated in India, Thailand, Vietnam, China, and the United States and has a dry, loose consistency.

Javanica is a medium-grain rice-typically found in Southeast Asia, Spain, and Italy-is far less prominent is a bit stickier than Indica, but not as sticky as the third variety.

Japonica, includes the *100 or so breeds used in sake making*. About 90 percent of it, however, is table rice. Despite its name and common uses, Japonica didn't actually originate in Japan. New evidence suggests that it actually originated in Southeast Asia, eventually traveling through Yunnan and then through the low-er Yangtze River region before finally making its way over the East China Sea to Japan.

The version of Japonica rice used to produce most sake differs from the variety you're likely to eat as part of a meal. While it's perfectly possible to brew sake with common table rice, the vast majority is made with what's known as shuzo-kouteki-mai (but calling it "sake rice" is perfectly acceptable). Shuzo-kouteki-mai is considerably more expensive than table rice. Since it's a lot harder to cultivate, far less of it is produced, so producers don't get the same bulk discounts they'd get for the more edible stuff.



What is Sake?

Rice pt II

So what makes "sake rice" so special? First, the kernels are much larger than those of the table variety, yet they are actually very fragile. They're also like sponges in that they have an incredible capacity for water absorption. But there are two characteristics in particular that make sake rice so desirable: **shinpaku** and **gaikonainan**. Shinpaku, or "white heart," means the kernel has a dense concentration of starch in its core. The outer part of the kernel tends to be more amber-brownish, and the deeper you get to its center, the more opaque, strikingly white starch you'll encounter. While it has an abundance of starch, shinpaku has very little protein and fat-too much of which can have some undesirable effects on the desired flavor of sake.

*Gaiko Nainan comes into play after the rice is steamed. The term means firm on the outside and tender on the inside or, to borrow an oft-used foodie phrase from another culture, **al dente**.*

Even within the universe of shuzokoutekimai, not all rice is created equal.

There are four significant varieties of premium sake rice varieties

Yamada Nishiki - 山田錦

developed in 1923 and officially named in 1936. *Those who intend to produce a nihonshu that's complex, aromatic, and fruity often opt for Yamada Nishiki.*

Gohyaku Mangoku - 五百万石

If they're looking for a light, clean sake, they might try this introduced in 1938 and earning its moniker in 1957. Gohyaku Mangoku means "5 million koku" -koku is a unit of rice measurement-honoring an important milestone in grain-growing circles: 1957 was the year that the Niigata Prefecture, practically the Napa Valley of sake, first achieved a 5 million koku crop yield.

Omachi - 雄町

Discovered as far back as 1859, *is considered an "heirloom rice," as the species grown today is still from that original strain.* Grown almost exclusively in the Okayama Prefecture, Omachi is notoriously difficult to cultivate-partly due to the fact that the plant grows rather tall and is very susceptible to high winds and inclement weather. It's also known to be quite temperamental during the brewing process and requires extra care. *But the deep, complex, "earthy" flavor it imparts to sake* has made it worth the trouble for many brewers. Many assert it's the best variety of rice to pair with food, given its robust characteristics. Keep an eye on this one.

Hattan Nishiki - 八反錦

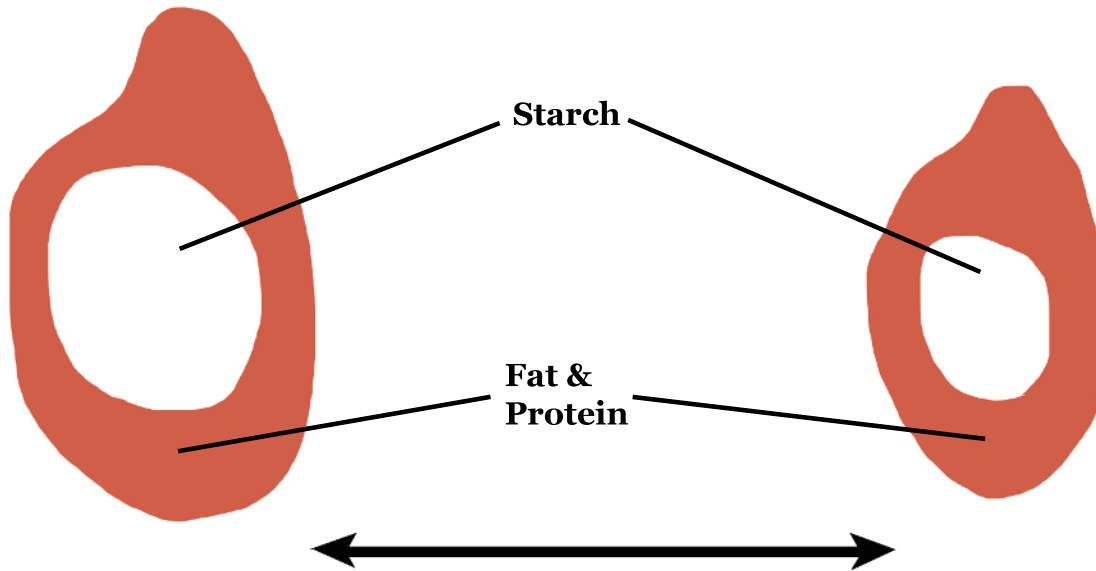
is comparatively brand new. Developed in 1973 and commercialized in 1984, Hattan Nishiki's claim to fame is its relative resilience. It grows shorter than other varieties, which is advantageous when cultivating the grain. The shorter the plant, the less vulnerable it is to heavy winds. It's also fairly disease-resistant, which means it doesn't require much helicopter parenting.

There are more than 90 other rice varieties commonly used in making sake, but I just wanted to detail the kinds you're most likely to encounter as you sip your way through the nihonshu realm.

What is Sake?

Rice pt III

How is sake rice different from table rice?



Saké Rice (Sakamai)	Table Rice
+ Bigger than Regular Rice in Size + Great Water Absorbancy + Less Sticky + Soft Outside and Hard/Dense Inside + High Starch Content + Fewer Proteins and Less Fat	+ Smaller than Saké Rice in Size + Less Water Absorbancy + Very Sticky + Soft and Chewy

Different rices produce sake's with different tastes, just as different types of grapes produce different wines. The individual character of a particular sake is due in part to the variety of sake rice used in brewing

Read more on sake rice versus table rice at...

<https://www.mtcsake.com/education-sake-shochu/2015/5/5/how-is-sake-rice-different-from-table-rice>

Or, use the QR code here



What is Sake?

Rice pt IV

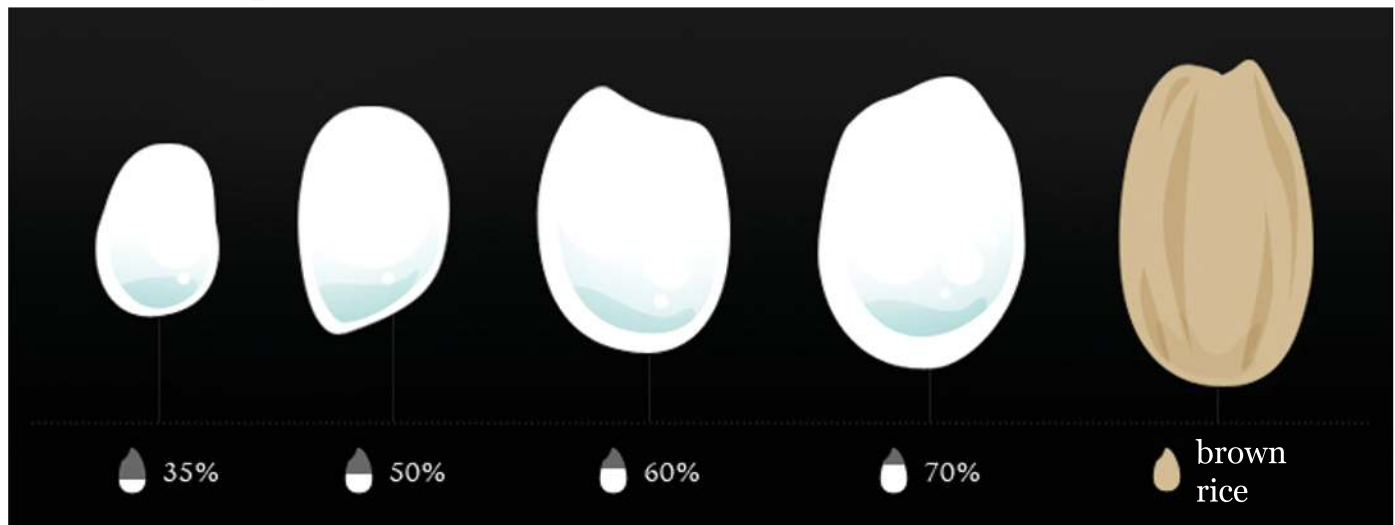
How is sake graded?

Tokuteimeishoshu, or specially designated sake, is categorized into **eight different categories by whether it is alcohol fortified or not and rice polish ratio.**

Tokuteimeishoshu falls under one of two classifications:

Junmai, brewed without the use of high strength distilled alcohol, and
Honjozo or Aru-ten, fortified with high strength distilled alcohol

Seimaibuai (Rice polish ratio):



Tokuteimeishoshu is further categorized by **seimaibuai**- or rice polish ratio. Rice kernels are polished (*milled*), and the percentage of weight remaining is defined as a minimum polish ratio.

The lower the percentage, the higher the grade. From least to most polished, the grades are:

Honjozo (70%),
Ginjo/Junmai Ginjo (60%),
the premium Daiginjo/Junmai Daiginjo (50% or less)

It is important to note that **all non-tokuteimeishoshu is called Futsu-shu, or ordinary sake.** **Roughly 70% of Sake made today is futsu-shu**, which is allowed to have less than 15% koji ratio, more than 10% distilled alcohol, and allowed to have additives such as sweeteners, and acids whereas tokuteimeishoshu can only have water added after pressing.

What is the meaning of the rice polishing ratio, and how does it affect sake?

Japanese sake is made with rice that has been polished or milled down. The rice polishing ratio is the percentage of the rice that remains after the husk (*outer portion*) of the brown rice (*all rice is brown prior to removal of the husk*) is polished off. The husk and outer portion of the kernel contain more protein and fats than the inner portion of the grain. These two components can produce undesirable aromas and negative flavors in the sake.

Read more on Rice Polishing at...

<https://www.mtsake.com/education-sake-sho>

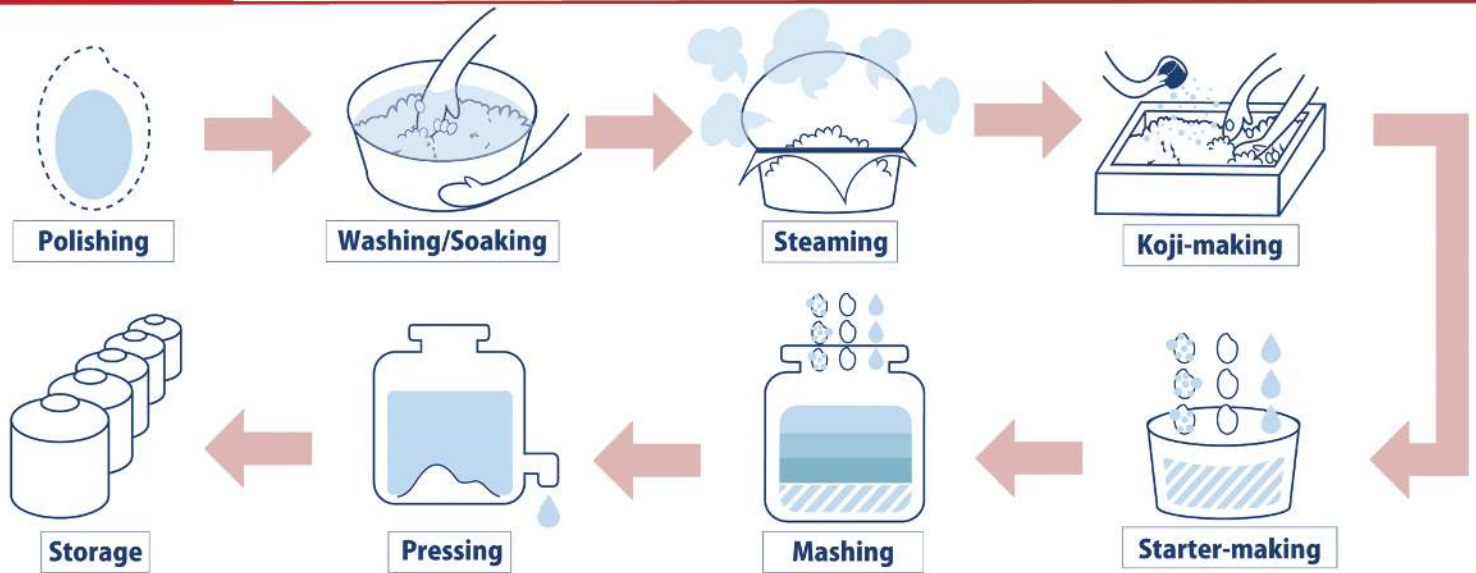
[hu/2015/2/2/what-is-the-meaning-of-the-rice-polishing-ratio-and-how-does-it-affect-sake](https://www.mtsake.com/education-sake-sho/hu/2015/2/2/what-is-the-meaning-of-the-rice-polishing-ratio-and-how-does-it-affect-sake)

Or, use the QR code here



Sake Brewing Process

How to Brew



Polishing

The rice is polished to remove excess outer layers

Washing/Soaking

Leftover bran is rinsed off the rice, which is then soaked in water

Steaming

The rice is steam-heated to make it easier to grow koji cultures

Koji Making

Koji mold is sprinkled onto the steamed rice and propagated

Starter-Making

Steamed rice, koji rice, and water are combined in a small tank, and yeast is added to form the fermentation starter

Mashing

The starter is transferred to a large tank, to which more steamed rice, koji, and water are added in multiple stages to carry out fermentation

Pressing

The mash is pressed to separate the sake from the sediment (lees)

Storage

After removing leftover sediment, carbon filtration, dilution, and pasteurization are employed, then the sake is stored

Categories of Sake

Categorization

The National Tax Administration Agency has developed several categories for different sake's distinguished by their own individual characteristics. This categorizing of sakes began in 1989. The different categories were developed for two reasons: there are many great varieties of sake in Japan, and sake brewing techniques have continued to develop over the years.

Sakes are classified in 8 different categories based on the ingredients and the rice polishing ratio (Seimaibuai). Each category reflects a specific characteristic fragrance and taste, so you can use a category name in searching for your favorite sake. Distilled alcohol is typically made from the fermentation of sugar that is refined from sugarcane.

Distilled alcohol can be added to four types: *Dai-Ginjo*, *Ginjo*, *Tokubetsu Hojozo*, and *Honjozo*. The quantity of distilled alcohol has a direct effect on the fragrance of the sake as well as its shelf life. The distilled alcohol that can be added must be less than 10% of the total weight of the polished rice. This is one of the essential regulations involved in the process of making sake.

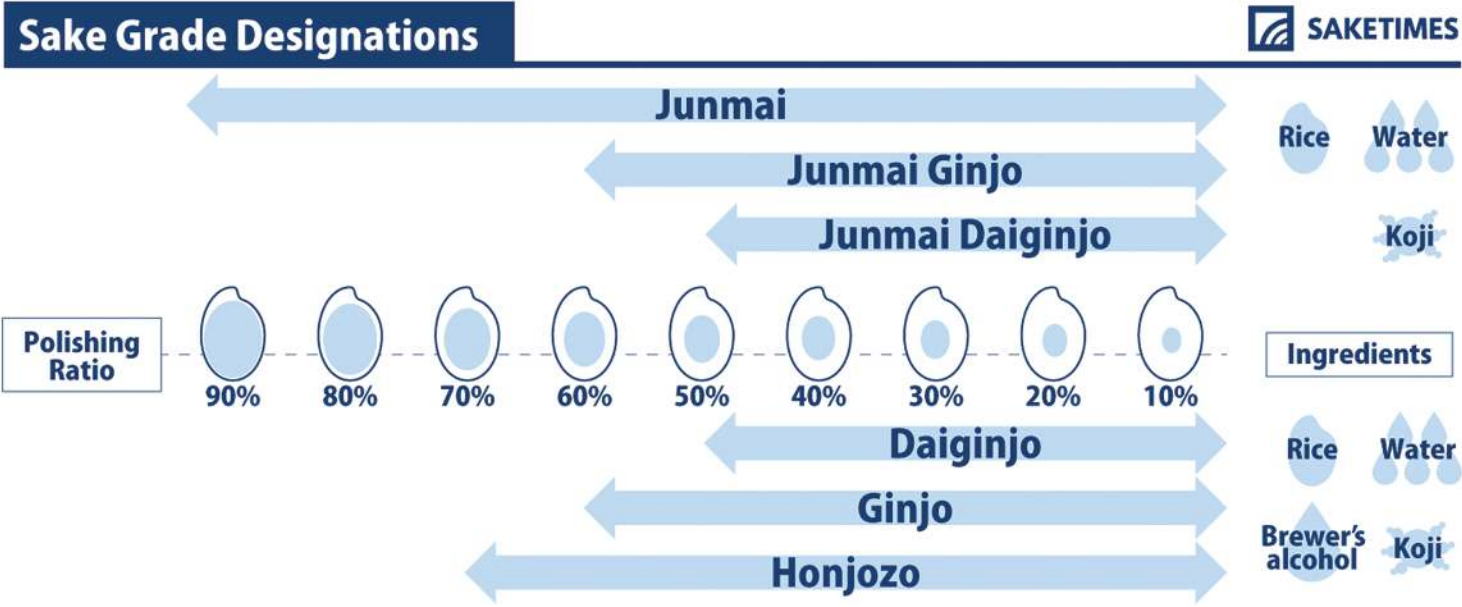
Grade	Ingredients	Rice Polish Ratio/ Seimaibuai	Characteristics
<i>Junmai Daiginjo</i> super premium	Water, Rice, Rice Koji, Yeast	50%, or less, remaining	usually light & fragrant; Ginjo brewing method used
<i>Junmai Ginjo</i> premium	Water, Rice, Rice Koji, Yeast	60%, or less, remaining	usually light & fragrant; Ginjo brewing method used
<i>Tokubetsu Junmai</i> special junmai	Water, Rice, Rice Koji, Yeast	60%, or less/ produced by special brewing method	varies
<i>Junmai</i> pure brew	Water, Rice, Rice Koji, Yeast	Unspecified	varies; usually has fuller body, savory character
<i>Daiginjo</i> super premium	Water, Rice, Rice Koji, Yeast, Distilled Alcohol	50%, or less, remaining	usually light & fragrant; Ginjo brewing method used
<i>Ginjo</i> premium	Water, Rice, Rice Koji, Yeast, Distilled Alcohol	60%, or less, remaining	usually light & fragrant; Ginjo brewing method used
<i>Tokubetsu Honjozo</i> special honjozo	Water, Rice, Rice Koji, Yeast, Distilled Alcohol	60%, or less/ produced by special brewing method	varies
<i>Honjozo</i> honjozo	Water, Rice, Rice Koji, Yeast, Distilled Alcohol	70%, or less, remaining	varies; lighter body, clean and aromatic



Categories of Sake

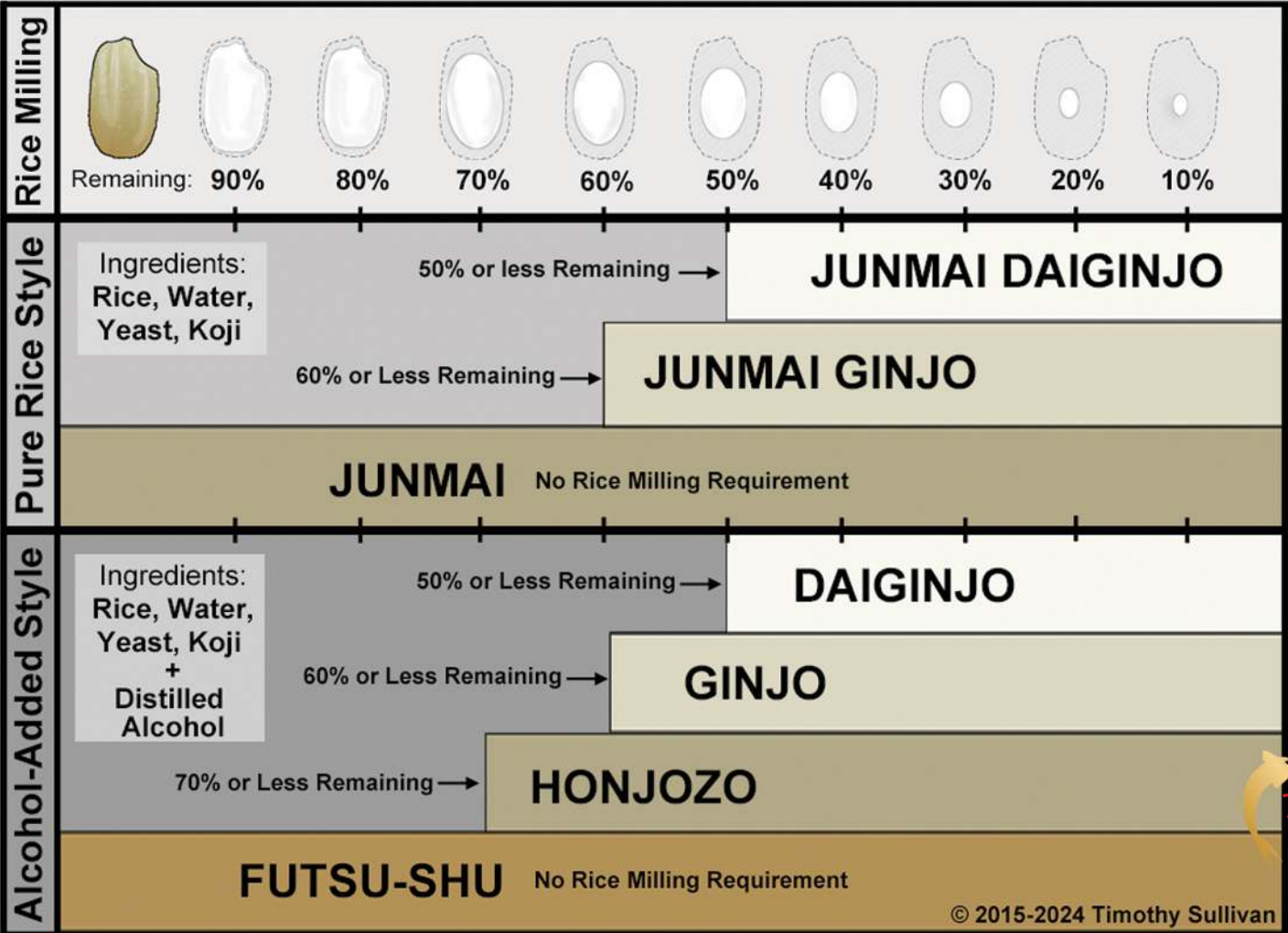
Categorization pt II

For ease of understanding this important topic- we can look at this information presented a few different ways. Please find what most makes sense to you.



URBAN SAKE

Sake Classification System



Categories of Sake

Categorization pt III

For ease of understanding this important topic- we can look at this information presented a few different ways. Please find what most makes sense to you.

Rice, Water & Koji	*JUNMAI Junmai is a pure rice saké nothing is used in its production except rice, water, yeast and koji. Junmai saké tends to be full bodied with stronger flavor than of other categories.		TOKUBETSU (SPECIAL) JUNMAI Tokubetsu junmai needs to be made with rice milled to 60% and/or have something else "special" about it, such as the brand of rice and brewing method.	JUNMAI GINJO Brewed with labor-intensive steps, using highly polished rice and fermented at colder temperatures for longer periods of time. Light, fruity, refined.	JUNMAI DAI GINJO Even more painstaking brewing process than Junmai Ginjo, which results in sake that is even lighter, more fragrant and fruity than typical Junmai Ginjo.
Rice Polishing Ratio	*There is no specific rice polishing ratio for Junmai Because of recent technical improvements, in saké production, the polishing rate regulation has been abolished.				
Rice, Water, Koji & Distilled Alcohol		HONJOZO Made with rice, water, koji and a very small amount of pure distilled alcohol ("brewers' alcohol") to help extract flavor and aroma. Light, mildly fragrant easy to drink.	TOKUBETSU HONJOZO Tokubetsu Honjozo needs to be made with rice milled to 60%, and/or have something else "special" about it, such as the brand of rice and method. Small amount of pure distilled alcohol is added.	GINJO Saké to which a small amount of distilled alcohol has been added, it tastes light & clear.	DAI GINJO Brewed with very highly polished rice and even more precise and labor-intensive methods. The pinnacle of the brewers' art. Generally light, complex and quite fragrant.

Made only with rice, koji, and water.

Within 10% distilled alcohol is added.



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FUTSU SHU	In the making of this kind of saké, a greater addition of distilled alcohol is permitted than for HONJOZO types. Also there is no minimum milling requirement for polishing rice. Futsu Shu is usually affordable and dry saké goes well with wide range of dishes.
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Additional Classifications

Additional

Nigori sake isn't necessarily one style in and of itself, as it tends to straddle a number of grades. There can be a **Junmai ginjo nigori**, **junmai daiginjo nigori**, **honjozo nigori**, **futsu-shu nigori**-you get the idea. Each of those adheres to its respective **seimaibuai** guidelines. **The unifying element is that they're coarsely filtered, leaving tiny, solid rice particles in the finished product.**

Nigori is cloudy white, with a creamy mouthfeel and typically a sweeter taste (*though I've had some nigoris that were medium-dry to full-on dry*).

Before you're pouring a nigori sake of any kind, gently agitate or “shake” the bottle to ensure that the little rice bits disperse and don't rest on the bottom of the bottle.

The sake professionals suggest to avoid using the term unfiltered to describe nigori sake, although many guests may refer to it as “*unfiltered sake*” – we do not need to correct them- it is just something to be aware of.

NAMAZAKE, NAMACHOZO, AND NAMAZUME: The advent of pasteurization was a real game-changer for every fermented beverage category, and that's no less true for sake. The majority of commercial sakes go through two levels of pasteurization. The industry classifies any product that doesn't under go the first, second, or both pasturizations as “*draft sake*.” **There are three designations under the broader draft umbrella: Namazake, Namachozo, and Namazume.**

For now it helps to know that **Nama** means **this bottle has not undergone one or all of the pasteurization process.**

Namazake-or nama-nama, as it is frequently called-is likely to taste and smell the most “*fresh*.” Another way to describe it is “*bright*.” Flavors within all three nama categories will vary greatly, depending on other, non-pasteurization-related processes and rice polishing ratio.

Taru: **Taru refers to sake that's been stored in cedar barrels.** Like barrel-aged whiskeys, taru sake tends to feature earthier and woodsier tones.

Sparkling Sake: Can be clear or cloudy, the carbonation can be injected or naturally produced by secondary fermentation in the bottle or in-tank secondary fermentation.

Reading Labels

Front Label

A bottle without english may be intimidating to understand. These diagrams can help you get started

FRONT LABEL

✓ = Legally required

Name of Sake

Type of Sake

Stated if the Sake falls into Premium Sake Classification. e.g. Daiginjo, Ginjo and Junmai.

✓ Type of Drink

Sake. Both 清酒 and 日本酒 means Sake.

✓ Alcohol content

Generally between 15 - 16%.
Around 20% for Genshu.

✓ Ingredients

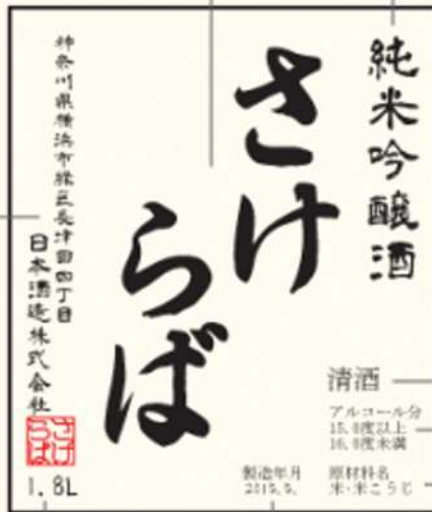
Rice and Rice Koji.
Distilled Alcohol is added to non-Junmai Type.

✓ Production Date

When the Sake was bottled and
dispatched from the brewery.

✓ Net Volume

✓ Name of Sake brewery and address



Reading Labels

Back Label

A bottle without english may be intimidating to understand. These diagrams can help you get started

BACK LABEL

✓ = Legally required

Brewery Year

The year the Sake was brewed.
Stated in Heisei Era. H27 = 2015

✓ Ingredients

Rice Polishing Ratio

How much of a rice grain remains after polishing.

Sake Meter Value

Generally the higher the value is, the dryer the sake is.
The lower it is, the sweeter the sake is.

Type of Yeast used

Name of the Brewer

✓ Production Date

Storage Method

Legally required to state a storage method if the sake is not pasteurized at all. e.g. Nama Sake must be stored in the fridge.

Type of Sake

Stated if the Sake falls into Premium Sake Classification. e.g. Daiginjo, Ginjo and Junmai.

Production Method

This is stated if the Sake was produced using a special production method. e.g. Nama Sake, Nigori Sake, Genshu, etc.

Type of Rice used

✓ Alcohol Content

Generally between 15 - 16%.
Around 20% for Genshu.

Acidity

The higher the acidity is, the dryer the Sake gets.

Type of Water used

✓ Name of Sake brewery and address

H27BY	純米吟醸	生酒
原材料名	米	米麹
原料米	緑区長津田地区産地山田錦	
精米歩合	50%	
アルコール分	15%以上16%未満	
日本酒度	+4.5	
酸度	2.1	
使用酵母	協会9号	
仕込み水	自然湧水 通称「黄金井戸」	
杜氏名	酒井太郎	
製造年月	H27.5	お酒は二十歳から
清酒	日本酒造株式会社	
1.8 L	神奈川県横浜市緑区長津田町丁目	
瓶内に白い物が浮遊もしくは沈殿している場合がありますが、これは通過を一切せずオリが含まれている為で、品質の異常ではありません。自然のままの酒の姿をお楽しみ下さい。		
要冷蔵	必ず冷蔵庫に保管して下さい	

✓ Characteristics of Sake/Cautions

Expectations for Employees

Necessary Knowledge

Although guests will get sake information from the sake menu, the servers and bartenders need to know how to recommend sake. The guest expects to be able to get answers from us. Inquiries may include things such as how to select the best matching sake for a particular dinner, the difference between the sakes on our list, or what is the “*most premium sake on the list*” and having the correct script to explain that ***all of our sakes are good and the distinction between each is their aroma, texture, taste, serving size, etc.*** Be prepared to answer things such as; why sake is cold versus warm, why some sake is clear versus cloudy, how sake relates to other beverages guests may be more familiar with, & tasting notes about each sake on the menu.

Additional information that would be helpful for staff to know:

A: Regions

Sometimes the customer wants to try sake just because of the region. Perhaps the customer comes from a particular locale or may have visited there once. Knowledge of the region can stimulate conversation between the customers and the wait staff.

B: The customer's favorite tastes

The wait staff can ask two questions to help the customers decide what they want in a sake. First, they should ask what kind of taste they seek, whether 'light' or 'rich?' Secondly, they should inquire about serving temperature, whether a customer prefers 'chilled,' 'room temperature,' or 'warm.' At this point, the wait staff can ask customers about their favorite tastes, but also should be able to recommend the serving temperature for a specific type (*See our FAQ- How and why sake should be enjoyed at different temperatures*)

C: Food matching

This is a crucial area in terms of information. Of course the wait staff knows the restaurant's menu for each course, especially their daily specials or recommendations. The matching sake 's change according to the course, so it is better to know which dish would be fitting for which sake before talking to the customer. If the wait staffs already know their favorite dishes and the matching sake, that knowledge would make it easier to recommend specific brands to their customers.

Additional Resources

Aromatic Sake	Rich Sake	Aged Sake
 Wide opening glass such as one made for white wine.  Small sake glass with wide opening.  Champagne glass will work great for aromatic sake	WINTER  To enjoy rich or thick sake (Junmai or Honjozo type) it's better to serve in a pottery sake cup. Such a cup for serving HOT rich Sake SUMMER  You may Also may serve this sake in thin glasses during the summer time.	 To enjoy aged Sake, a Brandy glass will work great to capture the rich aroma. Other ways to Serve Sake SUMMER  WINTER 

How to serve saké

Sake Service:

Do the types of containers used change the taste of sake? YES!!

The fragrance and taste of sake are totally dependent upon the size and shape of the container in which the sake is served.

Tokkuri Manners



Pour with both hands



No shaking



Don't Hold Neck



Don't spill!

Additional Resources



How is Sake Brewed | MTC Sake
Includes an informative 14m video

<https://www.mtcsake.com/education-sake-shochu/2015/5/5/how-is-sake-brewed>

Aroma & Flavor Sake Guide
Very helpful for offering recommendations

<https://sakeguide.net/articles/2019/8/8/sake-aroma-and-flavour>



Safely Storing Sake | MTC Sake
preserving quality and shelf stability

<https://www.mtcsake.com/education-sake-shochu/2015/5/5/how-should-one-properly-store-sake-what-is-the-average-shelf-life-of-sake-why-are-the-sake-bottles-colored>

5 Expressions to Describe Sake
A simple blog post

<https://digjapan.travel/en/blog/id=11042>



Sake School of America | Comprehensive Guide
A 70+ page booklet on Japanese Sake

<https://www.sakeschoolofamerica.com/wp-content/uploads/2020/05/Comprehensive-Guide-to-Japanese-Sake.pdf>

Different Types of Sake
Inofrmative & Detailed Blog Post

<https://sakehub.com/types-of-sake/>



Books, Videos, & Podcasts listed on Reddit

https://www.reddit.com/r/Sake/comments/spfrdh/best_resources_to_learn_about_sake/

Sakepedia: A Non-Traditional Guide to Japan's Traditional Beverage, by Jeff Cioletti

A book I've found very helpful

<https://www.goodreads.com/book/show/41094818-sakepedia>