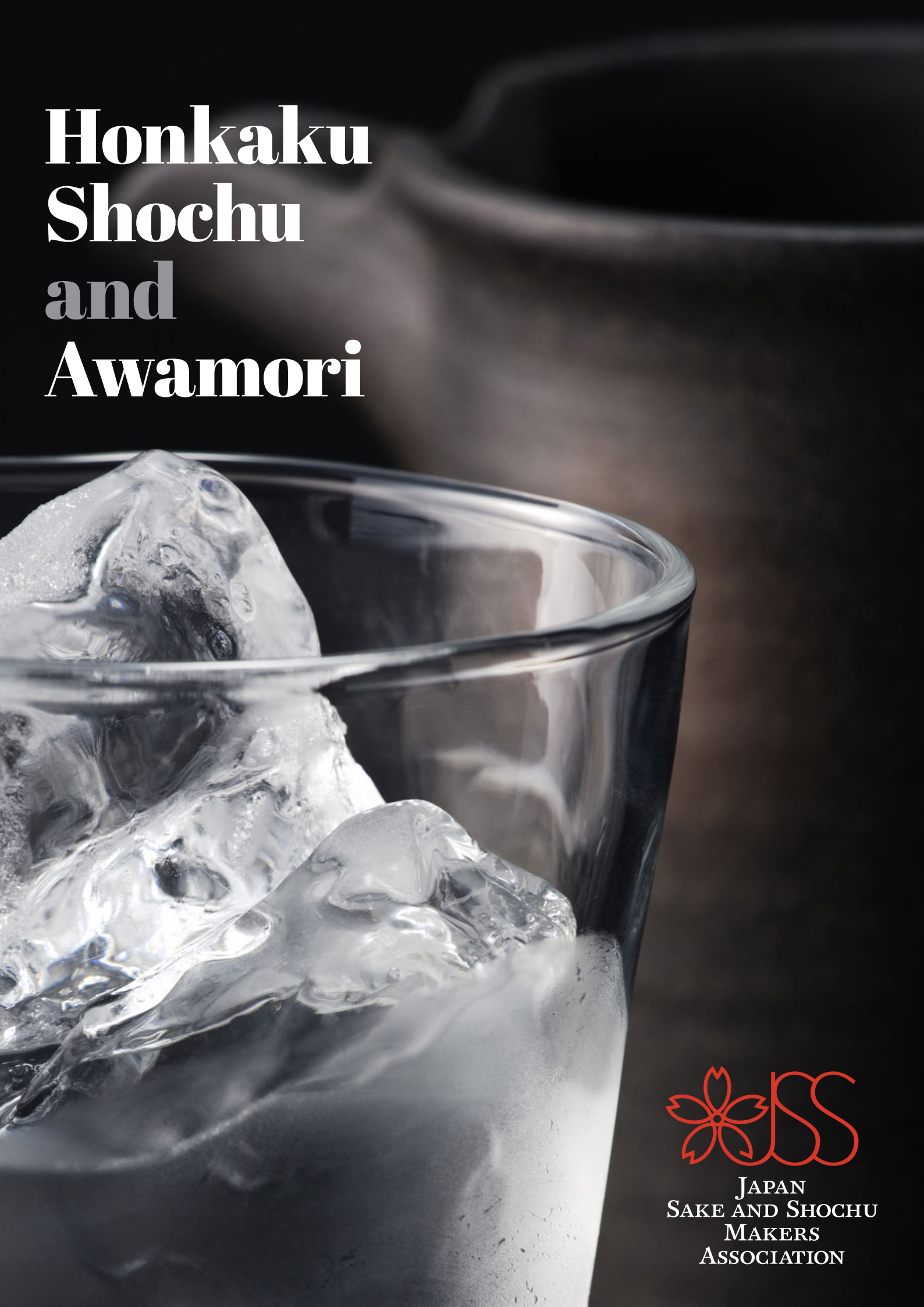
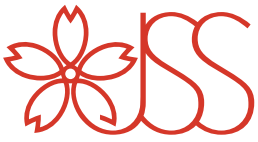
Honkaku Shochu and Awamori



Japan
Sake and Shochu
Makers
Association



Japan
Sake and Shochu
Makers
Association

Contents

This text has been prepared by the Japan Sake and Shochu Makers Association in collaboration with the National Research Institute of Brewing.

Shochu is roughly divided into two categories both regulated under the Liquor Tax Act

What is Honkaku Shochu?

Honkaku Shochu (authentic Shochu) is a popular distilled spirit that has been developed over the past five centuries, mainly in southern Kyushu, and is now produced all over Japan.

Shochu is roughly divided into two categories both regulated under the Liquor Tax Act: single distillation Shochu (alcohol content of 45% or less) and multiple distillation Shochu (alcohol content of 36% or less). Out of single distillation Shochu, the following can only be called Honkaku Shochu:

- Spirits made with grains or tubers, *koji* (saccharifying agent) made from the main ingredient and water that has been fermented and distilled. (e.g. rice Shochu, barley Shochu, sweet potato Shochu)
- Spirits made with grain *koji* and water that has been fermented and distilled. (e.g. Awamori)
- Spirits made with *Sakekasu* (Sake cake) and water that has been fermented and distilled, or made solely with distilled *Sakekasu*. (e.g. *Kasutori* Shochu)
- Spirits made with brown sugar, rice *koji* and water that has been fermented and distilled. (e.g. brown sugar Shochu)

Honkaku Shochu and Awamori incorporate the rich flavors of the ingredients; on the other hand, multiple distillation Shochu is bland and innocuous.


40
41
42
NO 20
16

The actual origins of the various kinds of spirits found around the world have never been fully clarified

How to Make Honkaku Shochu and Awamori

1

Principles of Production

The main ingredients of Honkaku Shochu are starchy foods, such as rice, barley and sweet potatoes. *Koji* is always used in the making of Honkaku Shochu in order to break down the starches contained in the main ingredients into sugar. While yeast can produce alcohol by digesting sugars through the process of fermentation, yeast itself has no ability to break down starches. If only starches were used, it would be impossible to cultivate yeast or ferment the starches to produce alcohol. Therefore, when producing Honkaku Shochu or Awamori, black or white *koji* fungus is sprinkled over steamed rice or barley to allow the *koji* to cultivate for about two days. *Koji* contains enzymes that can break down starches into sugar, and the yeast with the *koji* goes through the fermentation process to produce alcohol.

Generally, the ingredients go through the *shikomi* process (*1) twice during Honkaku Shochu production. In the first *shikomi*, conducted mainly to cultivate yeast, approximately the same amount of *koji* and water is added to a fermentation tank to grow the yeast for about a week and then to form the first *moromi* (fermentation mush). In the second *shikomi*, the main ingredient, such as rice, barley or sweet potatoes, and water are added to the first *moromi* to decompose the starches with the enzymes contained in the *koji* and ferment along with the yeast to produce alcohol.

The variety of Honkaku Shochu is determined according to the main ingredient added in the second *shikomi* process (rice Shochu, barley Shochu, sweet potato Shochu, etc.), which takes one to two weeks, depending on the main ingredient. The alcohol content of the second *moromi* at this stage is about 14–20%. Following this, the second *moromi* mush is transferred to pot stills in preparation for the distillation process.

One variety, Awamori, is produced only by use of the first *shikomi* process, in which rice *koji* cultivated by black *koji* fungus, water and yeast are mixed and fermented to produce alcohol and then distilled. The alcohol content of *moromi* for Shochu is higher than that of other spirits so it is possible to make a product with a high alcohol level after only one distillation process. Therefore, a number of volatile compounds, including alcohol, are retained to keep the rich aroma and taste of the ingredients. For the final Honkaku Shochu product, it is stored and matured, with the alcohol level adjusted through adding water before bottling and shipping.

*1 *Shikomi* is the process to put ingredients/materials into tank.

2

Characteristics of Honkaku Shochu and Awamori

It is very important to protect the *moromi* mush from bacteria in the alcohol production process. Therefore, black and white *koji* fungi are used in the making of Honkaku Shochu and this generates a good amount of citric acid, which makes *moromi* strongly acidic. In this way, the growth of bacteria is controlled and *moromi* is protected from its effects.

The actual origins of the various kinds of spirits found around the world have never been fully clarified, but it is said that a still for single distillation called an “alembic” was developed in the Arab world during the 5th century and spread both east and west. Certain spirits were produced in Asia in the 13th or 14th century, and in Japan, it is generally believed that the distillation technology was brought from Siam (present Thailand) to the Ryukyu Kingdom (present Okinawa), which was actively trading with Southeastern Asian countries during the 15th century. However, there is no widely accepted theory of how and from where the Shochu production technology came to Kyushu, although some have suggested Ryukyu, Korea, China, and Europe. There are actually records that state Shochu was produced in Kagoshima in the 16th century, so it is likely it probably spread gradually all over Japan via Miyazaki and the Kuma region, finding a home in different regions as a local specialty.

In Japan, it is generally believed that the distillation technology was brought from Siam (present Thailand) to the Ryukyu Kingdom (present Okinawa)

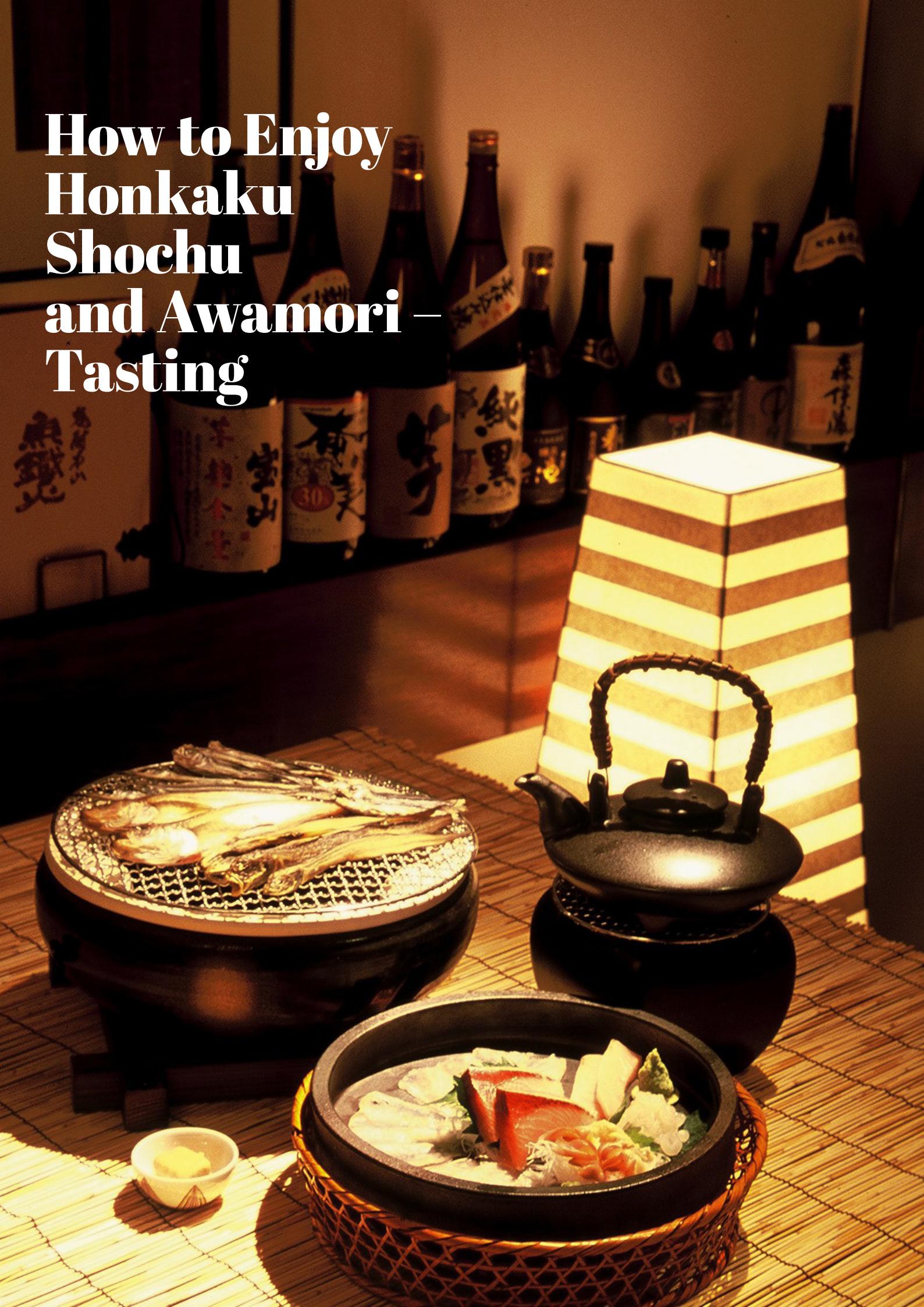
3

Types of Distillation

Honkaku Shochu or Awamori makers use two different single distillation methods: atmospheric distillation and vacuum distillation. In the atmospheric distillation method, as the pressure inside the still is 1 atm, the same as that of the outside atmospheric pressure, the temperature of the *moromi* mush rises to approximately 85-95°C. Shochu *moromi* is strongly acidic, so when it is heated to a high temperature, the substances in it undergo certain chemical reactions, which result in the generation of new volatile compounds, creating a rich aroma. On the other hand, in the vacuum distillation method, the pressure inside the still is reduced to allow the temperature of the *moromi* to rise to just 45-55°C. Therefore, chemical reactions are not as much in evidence as in the other method, which creates a light and subtle flavor in the final product. At many distilleries, a variety of flavors are created by utilizing these two types of distillation stills.

At many distilleries, a variety of flavors are created by utilizing these two types of distillation stills.

How to Enjoy Honkaku Shochu and Awamori – Tasting



1

How to Enjoy Honkaku Shochu and Awamori

The alcohol content of Honkaku Shochu or Awamori is generally 20-30%, which is higher than Sake, so these drinks are usually diluted with hot or cold water. This is actually the best way to enjoy the distinctive aroma of these beverages.

With hot water, the most popular way to dilute is 4 to 6, 5 to 5 or 6 to 4 (Honkaku Shochu/Awamori to hot water) to adjust the alcohol level to around 15%, the same as that of Japanese Sake. When the temperature is higher, some components in the Honkaku Shochu or Awamori will evaporate, making it more aromatic. Furthermore, the more alcohol that evaporates, the sweeter and more enticing the scent. Also, when diluting with hot water, it is best to pour the hot water into the glass first and then add the Honkaku Shochu or Awamori gently to allow the two to mix well, adjusting the temperature to best enjoy the flavor. However, if you pour the Honkaku Shochu or Awamori first, it is probably easier to measure the actual amount of Honkaku Shochu or Awamori you are using.

When diluting with cold water, put some ice in a glass, pour Honkaku Shochu or Awamori onto it, fill the glass with cold water to adjust the alcohol level to about 10-15%, and mix well. In this way, the aroma of the Honkaku Shochu or Awamori becomes milder with a refreshing flavor. If you put ice and Honkaku Shochu or Awamori first and then pour cold water gently over it, the Honkaku Shochu or Awamori will circulate up to the top, making the top part of the drink stronger. In this way, you can enjoy the rich flavor of Honkaku Shochu or Awamori with your first few sips, and gradually enjoy a weaker and milder flavor as the Honkaku Shochu or Awamori drifts slowly down.

If you want to enjoy the real flavor of Honkaku Shochu and Awamori, the best way is to drink it straight or on the rocks. However, it is important to pay attention to the alcohol level, which can be quite strong. It is best to enjoy the aroma first, then sip a small amount (1-2ml) of Honkaku Shochu or Awamori, swirling it around your mouth to savor the taste before swallowing. In this way, the alcohol is diluted in the mouth, allowing a smoother passage down the throat.

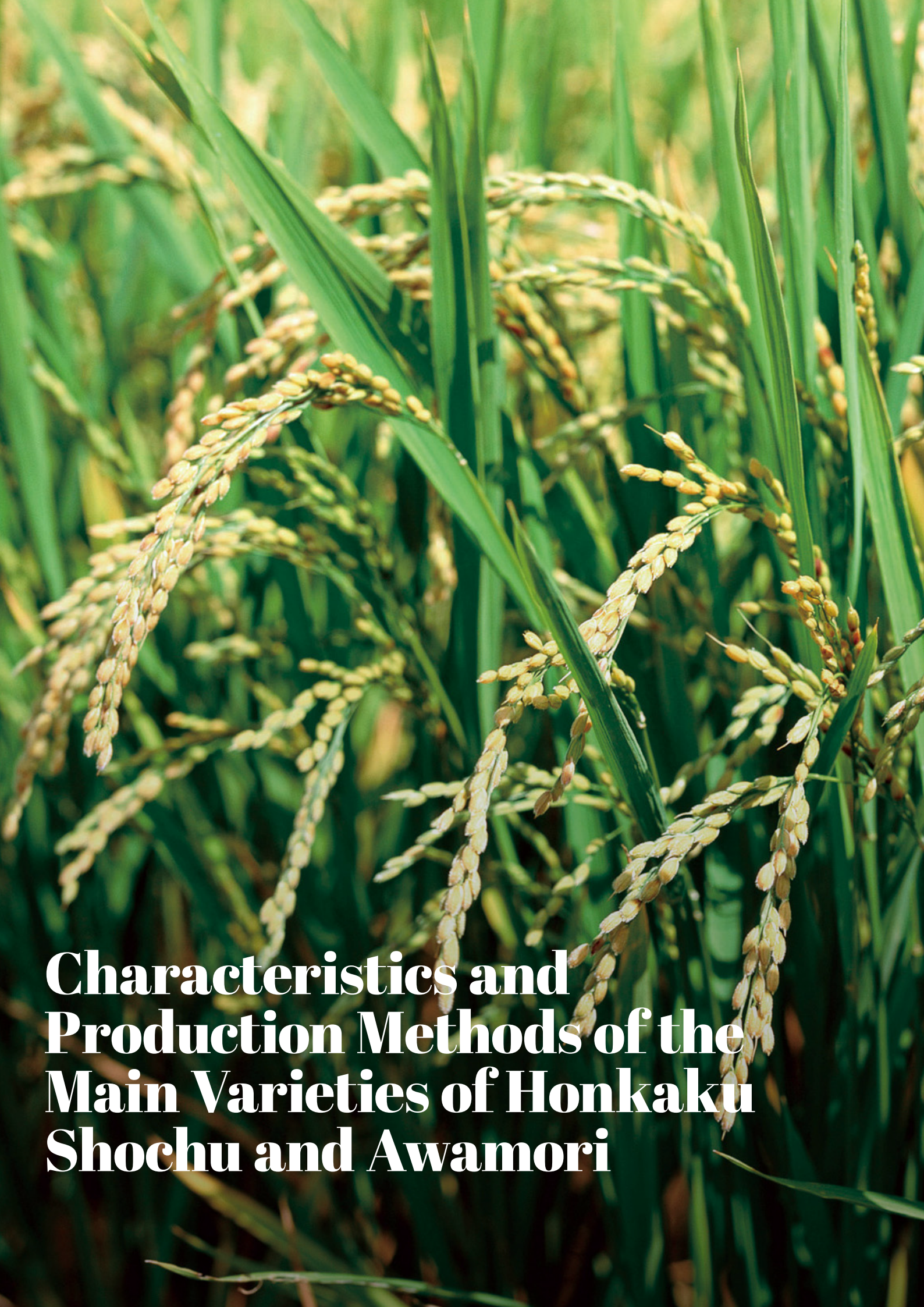
As most Honkaku Shochu and Awamori do not have a very strong flavor, these drinks rarely clash with the flavors in food. Instead, certain unpleasant tastes in foods, such as oils and fats, are washed away by the refreshing flavor of the Honkaku Shochu or Awamori, often making dishes taste better.

2

Honkaku Shochu and Awamori Tasting

It is easier to tell the difference in the quality of Honkaku Shochu or Awamori if you separate aromas and flavors when tasting. Aromas are judged with the distinctive traits of the ingredients taken into consideration, whereas tastes are judged by levels of sweetness and mellowness. Once you become more experienced at tasting, you should start considering the balance between aroma and taste. These aspects vary depending on the ingredients used and the production method, so evaluation criteria needs to be adjusted according to the particular variety.

If you want to enjoy the real flavor of Honkaku Shochu and Awamori, the best way is to drink it straight or on the rocks.



Characteristics and Production Methods of the Main Varieties of Honkaku Shochu and Awamori

1

Kome (Rice) Shochu

Kome Shochu is produced all over Japan, with one of the oldest production areas being the Kuma region (Kuma-gun and Hitoyoshi City, Kumamoto Prefecture), with the geographical indication of "Kuma Shochu" protected by the World Trade Organization's TRIPS Agreement on intellectual property (see page 19). In this region, the Kuma River flows through a plateau surrounded by mountains, and rice has been grown there since the Kamakura period in the 13th century. It remains unclear when *kome* Shochu production actually started in this region, but there are still nearly 30 distilleries along the river.

To produce *kome* Shochu, rice *koji* is used in the first *shikomi* process, and steamed rice and water are added for fermentation in the second *shikomi*. Yellow *koji* fungus, generally used to make Sake, was mainly employed in the development of *koji* for *kome* Shochu up to the early 20th century. However, white *koji* fungus is widely used these days, and black and yellow *koji* fungi have also become popular among those seeking richer and more distinctive aromas and tastes. Usually, *kome* Shochu is stored and matured for about six months after distillation and before shipment. During this period the taste loses some of its tanginess and the aroma settles.

Kome Shochu, made from a Japanese staple food, has an alluring aroma that enhances the taste of food. There are a number of *kome* Shochu varieties, including one with a richer flavor produced through atmospheric distillation, one with a subtle aroma and light taste generated through vacuum distillation, and one with a distinctive flavor produced through maturation in earthen urns or barrels. The richer type is usually enjoyed with hot water and the more subtle and lighter types on the rocks. Generally, *kome* Shochu contains about 25% alcohol. The stronger type is more commonly enjoyed in the Kuma region, where they have a custom to heat straight *kome* Shochu in a container called a "*gara*," and drink it from a small cup called a "*choku*."

2

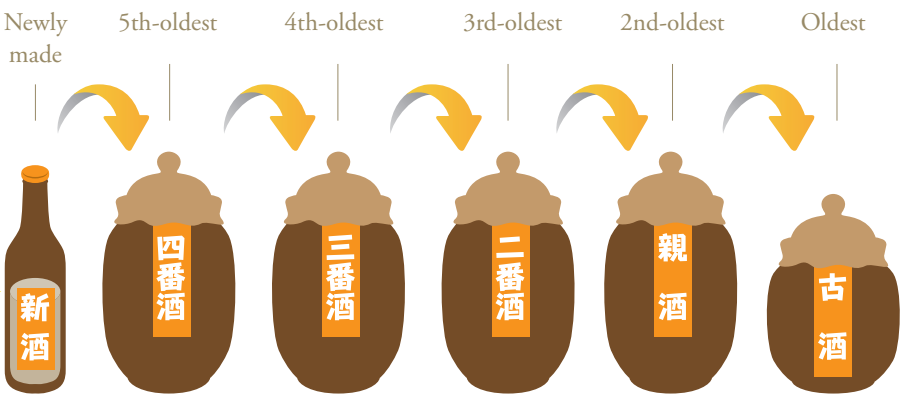
Awamori

Awamori is produced in Okinawa Prefecture and uses rice (Thai rice, etc.) only as the main ingredient. It is labeled as "Ryukyu Awamori," and this geographical indication is protected by the World Trade Organization's TRIPS agreement on intellectual property. As for the production method, black *koji* fungus is sprinkled over steamed rice to cultivate the *koji* first, and then one part *koji* and 1.5 parts water are added to a fermentation tank, along with yeast. This initial part of the process is particular to the making of Awamori, as it uses only black *koji* fungus and just one *shikomi* stage, in which the full amount of rice as a main ingredient is used to make the *koji*. After the *moromi* mush is formed, the enzymes contained in the *koji* break down the rice starches into sugar and the yeast goes through the fermentation process to produce alcohol. Following about two weeks of fermentation, the alcohol level of the mush becomes approximately 18%, after which it is transferred to pot stills for distillation. For Awamori, it is common to use a special distillation apparatus that circulates the *moromi* and is shaped somewhat like a horse. This helps develop Awamori's rich and deep flavor.

Awamori's rich flavor is also brought about by the single *shikomi* method. Its aroma, distinctive to the atmospheric distillation method, reminds one of fruits like apples and bananas. It also has an aroma similar to that of *matsutake* mushrooms due to the oily properties contained in the spirit. Vintage Awamori that has been allowed to mature for three years or more is called *Kusu*, and it has a sweet and mellow vanilla-like aroma that is brought about through the slow chemical reaction of its oily properties. Generally, the most popular way to drink Awamori is on the rocks or with water, while *Kusu* is best tasted straight.

Kusu, even with an alcohol level of over 40%, tastes mellow without a strong alcohol flavor and smells sweet. In order to enjoy *Kusu* this way while still maintaining the quality, a chronological/transfer ageing method called *shitsugi* is employed, which involves several urns filled with Awamori made in different years. For example, if five urns are used, when a drink is ladled out from the first urn containing the oldest Awamori, the same amount is then replaced from the second urn. This in turn is refilled from the third urn and so on, with the last urn filled with newly made Awamori. If you add newly made Awamori to the oldest, however, the quality and distinctiveness of *Kusu* will be lost. Also, if Awamori is left untouched in an urn, the actual volume will decrease due to evaporation and the level of alcohol will go down by approximately 1% year on year. Although the *shitsugi* process may seem like a slow and laid-back approach, it is an excellent method for maintaining the uniqueness of *Kusu*, and it basically assures that each drink retains a similar level of quality and alcohol content. Using this method, vintage *Kusu* that is aged over 100 years can be produced.

Awamori's rich flavor is also brought about by the single *shikomi* method.



3

Mugi (Barley) Shochu

There are two large islands in Kyushu: Iki and Tsushima, which appear in Gishiwajinden, a Chinese text written during the third century, as part of a primary transportation route between Japan and the Asian continent. While Tsushima has steep mountains and deep forests, Iki is quite flat and has the second-largest plain in Nagasaki Prefecture. Therefore, Iki is ideal for growing grains and fruit, and is also known for its quality beef and fresh seafood from the Genkai-nada Sea. In addition, it was here on Iki where *mugi* Shochu originated.

Iki's *mugi* Shochu is made with rice *koji* and steamed barley, which is different from the *mugi* Shochu produced in other areas. This is because the ratio of rice *koji* to steamed barley is 1:2, which has remained consistent since the Meiji era more than a century ago. In terms of production, the first *shikomi* process is conducted with rice *koji*, cultivated from white *koji* fungus, with the steamed barley added for fermentation at the second and third *shikomi* stages. Traditionally, it is produced by the atmospheric distillation method, but some *mugi* Shochu is made by the vacuum distillation method. Each distillery on the island has its own individual way of making its Shochu, such as the use of urns for *shikomi*, or oak barrels for storage.

Traditional *mugi* Shochu on Iki has a kind of roasted barley aroma, more like that of chocolate-covered barley, due to the atmospheric distillation method. In this method, starches contained in the barley undergo hydrolysis to produce sugar, and the sugar combined with amino acids is heated to generate the sweet and roasted aroma. It also has a rich flavor brought about by the rice *koji*, which stands out when combined and drunk with hot water. The name "Iki Shochu" is protected by the World Trade Organisation's TRIPS agreement on intellectual property.

By contrast, *mugi* Shochu produced in other areas, such as Oita Prefecture, is generally made with barley *koji* and steamed barley. The first *shikomi* is conducted with water and barley *koji*, which is cultivated with steamed barley and white *koji* fungus, followed by the second *shikomi* in which steamed barley and water are added for fermentation. Made by the vacuum distillation method, most of the varieties are of a fruity and light quality. As they are usually clear in color, it is best to drink them with cold water or on the rocks. It is also excellent as a base for cocktails.

Traditional *mugi* Shochu on Iki has a kind of roasted barley aroma, more like that of chocolate-covered barley.

4

Imo (Sweet Potato) Shochu

Imo Shochu is produced all over Kyushu, but in particular in Kagoshima Prefecture and southern Miyazaki Prefecture, as its main ingredient, sweet potato, is a signature product of these areas. Generally, *koji*, water and yeast are used in the first *shikomi* stage to cultivate yeast to a sufficient amount, and water and steamed sweet potato pieces are added in the second *shikomi* for fermentation, followed by distillation. The reason why there are two *shikomi* stages is that fermentation proceeds smoothly even when the scale of the *shikomi* is large. Before this method started around the early 20th century, the *koji*, sweet potatoes and water were combined at the same time. This method is called "*Donburi* (big bowl) *Shikomi*" and some distilleries have recently started to employ this method based on records from that time. Although sweet potatoes are generally steamed before the *shikomi*, some distilleries bake them to achieve a distinctive flavor that is both sweet and savory.

Recently, a wide variety of sweet potatoes and *koji* have been used for *Imo* Shochu. The following are examples:

Kogane-Sengan: This is the most widely used variety as the main ingredient of *Imo* Shochu with its flesh a whitish yellow color. The Shochu produced has a sweet and rich flavor, distinctive to steamed sweet potatoes.

Purple-colored variety: Yamakawa Murasaki and Ayamurasaki are well known varieties .Their flesh is purple and contains pigments called anthocyanins. The flavor of this Shochu reminds us of red wine and yogurt.

Orange-colored variety: The Shochu made with this orange-fleshed variety has a flavor quite like that of boiled carrots and pumpkins, as well as tropical fruits like papaya. The orange color comes from beta-carotene, which brings a certain unique aroma to the product.

Black *koji* fungus: This fungus, which was previously used for Okinawa's Awamori, started to be used in *Imo* Shochu production in the early 20th century. It is believed to help bring out the rich and deep flavor of sweet potatoes.

White *koji* fungus: This is actually a mutant strain of black *koji* fungus. Due to its black spores, black *koji* fungus tends to stain work areas, apparatus and clothing, so this white version became popular and spread to the Kyushu region after the war. The Shochu made with this fungus tastes slightly milder and lighter compared to that made with the black type.

Although it is delicious with cold water or on the rocks, the relaxing mellow flavor particular to *Imo* Shochu is often enjoyed with hot water, as the drink's distinctive aroma and sweet taste becomes richer when warmer. When Shochu with an alcohol level of 25% is diluted with water to a ratio of six parts Shochu to four parts water), the alcohol level comes down to almost that of Sake. The ratio is easily adjustable by changing the amount of hot water added to suit your mood. It is best to pour the hot water first and let it cool down a little before gently adding the Shochu, so that they mix well and the subtle sweetness comes out perfectly. In Kagoshima, however, there is another way to enjoy *Imo* Shochu, and that is to put the Shochu and cold water into a black pot, called a "*Kuro Joka*," and warm it up over direct heat. This custom is called "Dareyame" or "Daiyame," which originally meant "to stop fatigue." *Imo* Shochu produced in Kagoshima Prefecture is called "*Satsuma* Shochu" and this geographical indication is protected by the World Trade Organisation's TRIPS agreement on intellectual properties.

Imo Shochu is also produced on Tokyo's Izu Islands, and the residents there call it "*Shimazake*," or island liquor. Although its production method is believed to have come from Kagoshima, *Shimazake* is made with barley *koji*, rather than the rice *koji* of Kagoshima, and features a great combination of the sweet flavor of sweet potatoes and the light and savory flavor of barley.

5

Kokuto (Brown Sugar) Shochu

Kokuto Shochu, which features the subtle sweet aroma of brown sugar, is produced only on the Amami Islands of Kagoshima Prefecture. According to the Liquor Tax Act, these islands (managed by the Oshima Tax Office) are the only place allowed to produce the Shochu with brown sugar and rice *koji*. At present, there are distilleries on the Amami Islands, Kikaijima Island, Tokunoshima Island, Okinoerabujima Island and Yoronto Island.

Although sugar is present, *Kokuto* Shochu also uses rice *koji*, which supplies the amino acids, vitamins and fatty acids that yeast needs to grow. The citric acids contained in the *koji* also maintain the acidity of the *moromi*. In addition, amino acids are the source behind the aroma of high-quality alcohol and ester, and rice *koji* enhances the fermentation process, resulting in a richer flavor for the product.

Generally, the first *shikomi* for *Kokuto* Shochu uses rice *koji* cultivated with white *koji* fungus to develop the first *moromi* mush, and brown sugar is added at the second *shikomi*. Brown sugar is not produced directly from the white juice squeezed from sugar cane, but comes about after the juice is simmered, concentrated and solidified. The solidified brown sugar is resolved with water and steam, and the liquid is cooled for use in the second *shikomi*. The brown-colored sweet-smelling *moromi* mush looks delicious, but actually tastes quite sour with no sweetness, as it is in its pre-distillation state.

Kokuto Shochu's aroma has a distinctive sweetness, typical to brown sugar, and is slightly acidic with a hint of coconut oil. It has a subtle taste, and is probably more enjoyable when diluted with cold water, rather than with hot. The Amamioshima Branch of Kagoshima Prefecture Sake and Shochu Makers Association designated May 9th and 10th as "Amami *Kokuto* Shochu Day," as this Shochu represents the rich natural environment and long tradition of the Amami region.

Awamori's rich flavor is also brought about by the single *shikomi* method.

6

Sakekasu (Filtered Sake Cake) Shochu

Sakekasu Shochu is made with Sake cake, which is what is left after Sake has been pressed out of the *moromi* mush. It has long been employed for a range of purposes, including as an ingredient for drinks and as an antiseptic. It has also been used as a *Hashira Shochu*, a support spirit for Sake making, which is added to the *moromi* before the pressing in order to raise the level of alcohol for better preservation. In some regions, the alcohol-free leftovers obtained after distillation are used as a fertilizer in rice cultivation, and therefore *Sakekasu* Shochu is often drunk on those special occasions related to rice growing. This would include ritual events at shrines and the Sanabori festivals that celebrate the end of harvesting. ("*Sanaburi Shochu*") These are based on the philosophy that rice is used without wastage, for example, rice as a staple food, as an ingredient in Sake, Sake cake, and Shochu, as well as recycling the residue after distillation to be used as fertilizer to grow rice the following year.

There are two methods used in the production of *Sakekasu* Shochu: *Kasutori* and *Kasumoromitori*. Sake cakes contain remnants of the yeast and rice, as well as about 8% of the alcohol, and this is refermented to increase the alcohol content by a little more before distillation.

Kasutori: In this traditional method, Sake cakes are added with a small amount of water, and fermented for about a month with the help of yeast contained in the cake and distilled in steaming vessels. The fermented Sake cakes are mixed with rice hulls and spread in the vessels to ensure proper exposure to the steam. This steam that contains a fair amount of alcohol is then cooled down to become Shochu.

Kasumoromitori: In this method, Sake cakes and water are mixed to a porridge-like state, fermented for two weeks, and then distilled using the atmospheric or vacuum distillation method. Sake cakes are sometimes used as ingredients for the second *shikomi*.

As rice hulls are mixed in before distillation, *Kasutori* Shochu has a complex, sweet and savory flavor, derived from Sake cakes, rice hulls and dry grass. The type distilled in a wooden vessel also has a subtle woody aroma.

As these distinctive aromas and tastes are very strong just after distillation, the Shochu is stored for some time to allow for settling. The most popular way to enjoy *Kasutori* Shochu is chilled or on the rocks, and it can also be used as a base in the making of plum liquor. Generally speaking, *Kasumoromi* Shochu is a little milder than *Kasutori* Shochu, in terms of aroma and taste.

One new variety of *Sakekasu* Shochu is made with the finely crushed cakes from high-quality Sake using the vacuum distillation method. It has a sophisticated flavor similar to that of high-quality Sake. It tastes excellent both chilled and on the rocks.

The fermented Sake cakes are mixed with rice hulls and spread in the vessels to ensure proper exposure to the steam.

7

Appellation of Origin Status – World Trade Organisation's TRIPS Agreement

Appellation of Origin Control (French: Appellation d'origine contrôlée) is the system whereby the WTO grants certification to certain agricultural products such as wines from Bordeaux and Chablis, Champagne sparkling wines from Champagne region, Cognac, etc, based on the concept of "terroir" or traditional regional unique qualities.

Among Honkaku Shochu and Awamori varieties, Iki Shochu, Kuma Shochu, Satsuma Shochu and Ryukyu Awamori have been granted Appellation of Origin Status by the WTO.

Secrets behind the Honkaku Shochu and Awamori Aromas

Kusu, a vintage Awamori, has a sweet vanilla-like scent, which is also found with whiskey, and especially bourbon that is stored in charred barrels. This scent is derived from vanillin, which is generated when certain properties in the barrel undergo thermal decomposition. However, vanillin is also found in *Kusu*, which is stored in urns. The reason for this is the black *koji* fungus used for the production of Awamori. Starches in rice are protected by hard cell walls mainly composed of cellulose, hemicellulose, pectins and lignin. Black *koji* fungus not only produces the enzymes that break down starches, but also those that break down cell walls. Due to the activity of these enzymes, ferulic acid detaches from hemicellulose, transforms into 4-vinylguaiacol (smoky aroma, like that of Weizen beer made with flour) because of the other enzymes and yeast produced by black *koji* fungus and the heat at distillation, and undergoes chemical reaction during maturing, which results in sweet-smelling vanillin.

Imo Shochu has a distinctive sweet potato aroma derived from monoterpene alcohol, which binds with glucose to form aglycone in sweet potatoes, and is also contained in citrus fruits and flowers often used in aroma therapy. In the making of *Imo* Shochu, the sweet potatoes are first steamed, but the aglycone does not decompose and is brought intact into the *moromi* mush. In the *moromi*, the aglycone gets broken down due to the enzymes in the Honkaku Shochu *koji* fungus, and the monoterpene alcohol is detached. The structure changes through the distillation process because of the yeast and the acidic conditions, which then results in the creation of a distinctive aroma. Aglycone is contained more in the skin and the tip of sweet potatoes, so the aroma varies depending on how they are prepared, as well as the variety of sweet potato. It is also affected by how active the enzymes are, and some believe black *koji* fungus has a greater impact on this than the white variety.

The Beneficial Health Effects of Honkaku Shochu and Awamori

Honkaku Shochu and Awamori, produced from only natural ingredients, are low-calorie and zero-carbohydrate alcohol beverages. Therefore, blood glucose levels do not rise after consumption.

Honkaku Shochu and Awamori contain an element that exerts a revitalizing effect on the enzyme urokinaze (thrombus reduction enzyme), which is known to help prevent stroke and heart attacks. It is said that red wine is rich in urokinaze, but the concentration of urokinaze in the blood after drinking Honkaku Shochu or Awamori is 1.5 times higher than after drinking red wine.

Honkaku Shochu and Awamori are produced with only natural ingredients. Therefore their aromas have aromatherapy effects like natural herbs, bringing you stress relief and relaxation.

Because distilled Honkaku Shochu and Awamori do not include impurities, they do not cause hangovers. Of course, in general, if alcoholic drinks are consumed in the right amount as an accompaniment to food, it is easier to avoid drunkenness. Likewise, even with Honkaku Shochu or Awamori, it is important to drink sensibly.

Honkaku Shochu and Awamori are produced with only natural ingredients.