Seeds of Yamada Nishiki preserved by Hyogo Prefecture

Yamada Nishiki was developed in Hyogo Prefecture in 1936. Since then its seeds have been strictly controlled to protect its high quality characteristics. Each year, farmers in Hyogo grow Yamada Nishiki using these seeds. As shown below, the Yamada Nishiki’s original characteristics have been rigidly maintained since the first breeder’s seeds. Yamada Nishiki is a thoroughbred of sake-brewing rice that further enriches the flavor of Japanese sake.

Aiming for a new world, the Yamada Nishiki challenge continues
Connecting Yamada Nishiki and Consumers

Increasing Value with Terroir

Keiichi Hasegawa
President/CEO, Hasegawa Saketen, Inc.

"When going to breweries around Japan, I sometimes ask them to make Junmai Ginjo with Hyogo Prefecture Yamada Nishiki. That’s how much I think it can make good sake. Hasegawa, who actively works to increase people’s awareness of sake through the Sake Competition and so on, shared his thoughts about terroir. "If the amount of sake exported increases, requests to see where its rice is produced will grow. During such visits, there’s a need to explain the area’s terroir—history, soil, climate, people, and so on—as well as about Yamada Nishiki itself. By doing so, sake’s value increases." Hasegawa firmly believes that the sake market is growing. "Ingredients are just delivered to breweries, I think brewers should themselves go to the farmers, to where the ingredients are produced, and see it all for themselves while exchanging information. By doing so, the value of Hyogo Prefecture’s terroir will probably increase as well."

In closing, he said that the Sake Brewing Rice Trial Plot is a Hyogo treasure, and research should be expanded with breweries throughout the country.

Sake’s Elegance

Satoshi Kimijima
President, Yokohama Kimijima Co., Ltd.

“I think that taste of sake is first decided by the brewing rice. Through many years of tasting sake, I’ve come to understand that Hyogo Yamada Nishiki is an ingredient from which one can draw a dignified and sophisticated flavor,” says sake and wine lecturer and IWC panel chairman Satoshi Kimijima. Seeking good-tasting sake, he arrived at its rice: “There is no better brewing rice than Hyogo Yamada Nishiki. Its top quality is thanks to its terroir: the soil, climate, and people. Each rice paddy produces different sake.” He says that Yamada Nishiki paddies are top-class fields like Burgundy’s Montrachet. "Sake made with rice from these fields has a depth the same as or greater than wine in terms of flavor and aroma. Compared to this depth, its price is too low. We should have highly acclaimed sake that is graded like wine. I think that this will definitely happen if it is exported and establishes a reputation. This kind of reputation will create confidence and pride in growers, and also lead to an increase in their numbers.” Regarding the future of Yamada Nishiki, Kimijima states, "Put in terms of wine, it should go in the direction of terroir and natural farming. I’d like for even more of an emphasis to be placed on quality instead of quantity.”

Hasegawa Saketen, Inc.

President/CEO Koichiro Hasegawa has been to over 1,000 breweries throughout the country, seeking to discover new sake. The company has locations in Omiya, and many other popular spots. Hasegawa works to promote sake both inside and outside of Japan.

Sake Shop
Yamada Nishiki from Hyogo Prefecture: Reasons for choosing & expectations

Survey results on Yamada Nishiki produced in Hyogo Prefecture

| No. 1 | Koji (rice mold) is easy to grow, and of high quality 45% |
| No. 2 | Sake smells good 12% |
| No. 3 | Excellent rice polishing characteristics (less broken rice, low rate of unavailable rice polishing, etc.) 11% |
| No. 4 | Less soaking crack grains (immersion cracks) of rice polishing when absorbing water |
| No. 5 | Low protein |
| No. 6 | High rate of white core manifestation |
| No. 7 | Large grain size |
| No. 8 | Uniform grains |

**[In addition]**

- Easily digestible (solubility) • Akiyari is available (sake first released in early autumn)
- Produces best quality sake • Complete sake quality (range of tastes) • Rich taste and high clarity
- More stable brewing • Delicate sweetness (delicious flavor) even up to the same SMV (sake meter value)
- Suitable for exhibitions • Expected high-grade rich taste unique to Yamada Nishiki

Yamada Nishiki is used at 543 sake breweries in Japan.

Yamada Nishiki is delivered through JGA Group Hyogo to sake brewing companies in 43 prefectures from Hokkaido in the north to Miyazaki in the south.

Yamada Nishiki continues evolving with its wonderful history

Nada’s sake breweries, referred to as the Nada Gogo, are some of the most famous in Japan. Through the MURAMAI System, a unique sake rice dealing system in Hyogo area, they are strongly connected to Yamada Nishiki in a way not found in other prefectures. “Having thought about rice quality with farmers and made sake together—it’s really a valuable history for Nada’s sake breweries,” says Kenji Kano. According to Kenji Kano, Yamada Nishiki is a rice ideally suited for brewing sake due to the shape of the white core, its balanced composition, and so on. “When machines weren’t developed, our predecessors used their considerable knowledge and experience to figure out its superiority. Thus they began to grow it. I think it’s wonderful that it has continued to be the best brewing rice for eighty years.” Some visitors from overseas at the Hakutsuru Sake Brewery Museum ask to see the paddies where this rice is produced. “In the West and some other areas, people are becoming more health-conscious, so I’d like to take the lead in promoting our sake as an agricultural product that’s made with the blessings of Hyogo’s natural environment. Both sake and Yamada Nishiki are profound. I’d like to try out various possibilities.”

Yamada Nishiki, giving genuine taste of rice

Kenbishi Sake Brewing Co., Ltd., has engaged in maintaining its characteristic flavor for over 50 years. The brewery primarily uses Yamada Nishiki produced in Hyogo. Its bonds with producers that have been formed over many years transcend that of buyer and seller: even when the number of breweries using Yamada Nishiki sharply dropped, Kenbishi supported farmers by buying the rice, and after the brewery collapsed due to the Great Hanshin Earthquake, farmers it had contracts with provided support. “Yamada Nishiki has good solubility and quality. I can say that based on experience, which is the most important when making sake,” says Yuichi Fujita. There is also data from the Sake Brewing Rice Trial Plot to back this up. Its solubility is excellent because the amylpectin side chains in its starch are short. Furthermore, an acclaimed seed management system is in place. “Protein remains to some extent, which becomes umami and creates Kenbishi’s characteristic flavor.” Fujita also noted that there is a need for continued effort to reduce differences in quality due to weather.

A gift from heaven, Yamada Nishiki has self-made value

Honda Shoten Co., Ltd. has won Gold five years in a row at the Annual Japan Sake Awards. The Chairman, Takeyoshi Honda, loves Hyogo Prefecture Yamada Nishiki more than any other rice cultivars. He is now 83 years old (in 2016), and continues to research the soil of areas in which Yamada Nishiki TOKU-A’ (Special place ‘A’) is produced as a research fellow at Kyoto University. He explains that the goodness of Yamada Nishiki comes from the soil that has smectite in its clay mineral composition, as well as it being grown in clay Hyogo.

“Yamada Nishiki is nature’s blessing. It brings out yeast’s characteristics, creating good-tasting sake.” Honda Shoten’s Tatsuriki sake is receiving acclaim outside of Japan as well. Honda, who is aiming to make sake’s Romanee-conti with the best Yamada Nishiki, notes, “The value of Yamada Nishiki is something one creates.” Furthermore, to honor Teiji Fujikawa, the foster parent of Yamada Nishiki, he proposes creating a “Teiji Fujikawa Award” given to breweries using and recognizing the quality of Yamada Nishiki.
80 years later, its popularity remains strong. Yamada Nishiki from Hyogo Prefecture.

Profile of Yamada Nishiki

- **Birthday**: February 27, 1936
- **Parental** developed from artificial crossing of female “Yamada bo” and male “Tanaka Wataribune.”
- **Birthplace** Seed and horticultural division at Hyogo Prefecture Agricultural Experiment Station (then Akashi City) and Sake Brewing Rice Experimental Plot (currently the Sake Brewing Rice Trial Plot) at the Hyogo Prefectural Technology Center for Agriculture, Forestry and Fisheries.
- **Height** Approx. 130 cm (Stem length: 108 cm, Ear length: 20.9 cm)
- **Weight** Approx. 28.4 g (thousand grains weight of brown rice)
- **Features** As rice ideally suited for brewing sake, Yamada Nishiki boasts a complete list of advantages including grain size, shape of the white core, moisture level, and low amounts of fats and proteins.

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*Crop acreage and quantity of test samples for inspection of Yamada Nishiki grown in Hyogo*

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Why is Hyogo Called a Unique “Terroir” for Yamada Nishiki?

**Climate and Terrain**
The growing region of Yamada Nishiki, spreading over terraced slopes 50-150 m above sea level and valley regions in foothills north of Mt. Rokko, is blessed with perfect climate conditions. Located in the Sotobo Island Sea climate zone, the region enjoys mild climate throughout the year with long hours of sunshine and relatively low rainfall. And yet, with the Rokko Mountains blocking the cold winter air, nighttime temperatures during the grain-filling period are low and the daytime temperature difference exceeds 10°C, producing good rice crops.

**Soil**
Roots of the rice extend about 1 m deep in the clayey loam type soil common in this region. Deep soil with strong water and nutrient retention, the roots absorb moisture and nutrients from the lower soil layers. Because its strong roots stretch deep into the lower soil layers, Yamada Nishiki grown in this region suffered a withering drought in 1994. Despite this, its grain yield is still high.

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Revealing the Special Features of Yamada Nishiki

**Large Grain Size**
Thousand grain weight of Yamada Nishiki brown rice is approximately 28.5 g. Koshikari or other indica rice for making sake weighs about 25 g.

**White Core**
Rates of white-core manifestation is about 70%. Many grains have a linear-shaped white core and high water absorbability, allowing low rice nodules to easily enter the grains. (See photo)

**Solubility**
Due to the short chain of amylopeptin in starch, the starch accumulates slowly, enabling excellent solubility.

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Passing Down Yamada Nishiki

“The three elements of climate, soil, and passion are indispensable for growing Yamada Nishiki. This ingredient wouldn’t exist without them,” says Ioo, who has devoted himself to growing Yamada Nishiki. Yamada Nishiki has been grown thanks to the involvement of various people, and the bonds between farmers and breweries are especially strong: “In the case of the MURAMAI System, it is necessary to secure a stable supply of Yamada Nishiki. We help breweries when they are in trouble. The Yamada Nishiki MURAMAI System is built on trusting relationships with breweries.” He says that in the future it will be necessary to check what breweries feel is the strength of TOKU’A‘ (Special place ‘A’) Yamada Nishiki compared to other Yamada Nishiki. Answering the needs of breweries will support Yamada Nishiki’s future.

In response to the aging of producers, the Yokawa town is working to maintain this producing area by creating producer organizations, such as one for agricultural management. “Having a system for forming relationships with new farmers is also important. They are the people who are shouldering Yamada Nishiki’s future. Furthermore, there is a need for the national or prefectural government to create a systematized mechanism by which people who also have other jobs can grow it in a stable way.”

For both Yamada Nishiki’s future and producers of the next generation, it is important that the prefecture and Japan Agricultural Cooperatives’ experts properly pass down growing techniques and technology. He says, “We must pass down Yamada Nishiki’s eighty years of history and growing techniques and technology. Furthermore, there is also a need to form close and trusting relationships with consumers. It’s my hope that consumers will drink sake made with Yamada Nishiki and enjoy it more and more.”

Ioo’s inexhaustible passion is apparent in his plans to construct new organizations to pass down his love for Yamada Nishiki to the next generation. In closing, Ioo emphatically remarked, “Yamada Nishiki is my life.”

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*Interviews in this booklet were conducted between August and December 2015.*

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*Teiji Fukawa*, foster parent of Yamada Nishiki, is the first researcher of the Sake-brewing Rice Experimental Plot

1985 - 1949: Fukawa began growing Yamada Nishiki from 1982. Day after day, in rain, shine or storm, he bicycled the approximately 6 km rough mountainous road from his home to the experimental plot, and more than 20 km to the experimental plot field. Unable to afford a car-like ride after so many Rokkos, he continued riding the old one with patched-up tires. In 1986, Yamada Nishiki was designated a recommended variety of the prefecture. But due to world War II, Fukawa abandoned his research and chose to retire. At age 67, he died from illness. If he could see Yamada Nishiki’s popularity today, he would be so extremely satisfied.

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"Yamada Nishiki is My Life"

Toshikio Ioo
Head of Yamada Nishiki MURAMAI Division, Yokawa town

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