

# PREMIUM SAKE BREWING

**Elevating the spirits  
of tradition and  
innovation through  
better knowledge  
and rice**

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**Y**usuke Sato was born as the eldest son of a family operated sake brewery in Akita Prefecture, Japan, that had been in operation since 1852. He left his hometown without ever setting foot in the brewery, and even after graduating from Tokyo

University, he lived a life unrelated to sake as a journalist.

Then one day, he had a fateful encounter with a bottle of sake. "I had a chance to drink sake by Isojiman Premium-Sake Brewing Co, Ltd from Shizuoka Prefecture, Japan, on the recommendation of a senior colleague. I was so impressed by its taste that my previous notion of sake as a smelly and easy-to-get-drunk drink was completely overturned.

Completely fascinated by the sake, Mr Sato became a collector of sake, and as a journalist, he thoroughly studied the sake brewing process in order to appeal to the public about the depth and the taste of sake. He learned that sake is more of an art than he had imagined, and that it is a traditional industry that must be passed on to future generations.

However, when he saw the reality that sake breweries across the country were going out of business one after another due to the declining trend in sake consumption, he was shaken by the thought of what would happen to this irreplaceable traditional industry that had been handed down for 1500 years.

The man who had never set foot in a sake brewery before, gradually decided to dedicate himself to sake not as a journalist but as a brewer.

## **The rebuilding process begins**

When Mr Sato decided to return to his family brewery and started studying sake brewing at National Research Institute of Brewing in Hiroshima Prefecture on brewing know-hows and its cutting-edge technology, the Aramasa was in a financial slump.

Upon knowing the situation, Mr Sato completed his research earlier than planned and returned to the brewery to start rebuilding it. He gathered trustable colleagues from all over Japan and took the lead in creating new sake based on the knowledge he had acquired in Hiroshima.

Amazingly, in his first year of sake production, he won top prizes at various contests. He appeared out of the blue, shocked the sake world, and quickly became a man in the spotlight. "I was a rookie, but I was learning about the latest yeast, koji (malted rice) at National Research Institute of Brewing, so it was not surprising for me that I would win awards.

"Of course, I was happy and confident about the results, but at the same time, I began to feel unsatisfied. Even if I used highest quality rice, the most advanced yeast, and the latest machinery to win the prize, the taste would be similar to other breweries, and the brewery would not grow much.

"Besides, winning a prize in a contest is not necessarily the same as running a successful brewery and becoming

a big brand. So, I wanted to make good sake in a way that was more unique and different from other breweries,” he adds.

Mr Sato was not interested in gaining fame, he just tried to improve his business by brewing sake that he wanted. He then shifted his focus to producing “pure rice sake that is easier to understand the added value” compared with “low margin normal sake you need to sell a high volume of to make profit.”

### **The use of pesticide-free rice**

Since 2012, Mr Sato’s brewery has stopped using any additives (brewing acids, minerals, enzymes, etc), and has switched to pure rice brewing (rice, rice malt, and water are the only ingredients). In addition, all of the rice used for sake production comes from Akita Prefecture, while the yeast used is “No. 6 yeast”, the oldest commercially available sake yeast in existence, which was discovered by the fifth-generation brewer of his own brewery, Uhee Sato, around in 1935. “My brewing style is not disadvantageous at all. It requires a lot of time and effort, but it is romantic. In fact, we are able to make better products than before,” he says.

After focusing on ingredients, Mr Sato next turned his attention to the use of pesticide-free rice for sake production. “We wanted to remove pesticides from the rice and make it fully organic, so we started growing our own pesticide-free rice, and it took about five years”.



### **Higher protein content**

Compared to Yamada-Nishiki, a most famous rice suitable for sake brewing, rice grown in Akita Prefecture has a higher protein content, making it more difficult to brew good sake with traditional rice milling. For this reason, Mr Sato was an early proponent of “flat rice milling”, or low aspect ratio milling, in which the shape of the rice is left intact, rather than “spherical rice polishing,” a common method, to remove outer layers of rice containing proteins, fats, and other unwanted ingredients causing a bad taste or odor in sake.

The method is ideal for rice grown in Akita Prefecture because it removes unnecessary ingredients while efficiently leaving useful starch intact. “There is a common misconception that the price of sake is determined by the rice milling ratio. For example, Ginjo sake has a standard of 60 percent or less rice milling ratio, but there are other types of sake that taste better than Ginjo sake even if they do not meet the standard,” says Mr Sato.

“No matter how hard we worked to cultivate good rice, we didn’t want it to be judged only by the milling ratio and that is the reason why we needed different type of rice milling for more efficiency,” he adds. However, the realisation of ideal flat rice milling was not easy. He tried many times,



making several adjustments including reducing the rotation speed of the rice milling rolls, but he could not achieve the result he was looking for, and he was still working on flat rice milling with a sense of uncertainty.

At that time, one of the three rice milling machines he owned was due for renewal, and by chance, a fellow sake brewer informed him that Satake was developing a new brewing rice milling machine for flat rice milling.

### A reduction in processing time

In the fall of 2018, Satake introduced a new brewing rice milling machine that uses a newly developed milling stone that enables Ginjo or even Daiginjo-like taste without milling to its standard, 60 or 50 percent. In the past, flat rice milling was prone to create rice breakage due to the pressure applied to the rice, requiring a long time to mill the rice at lower gentle pressure.

However, Satake's new brewing rice milling machine uses a new type of milling roll, made of cBN (Cubic boron

nitride), which is sharp enough to handle flat rice milling.

Combined with a newly developed pressure control device, the new machine has realised a reduction in the processing time for flat rice milling compared to the conventional machine, which has greatly improved rice milling efficiency.

In addition, even if the rice milling ratio does not reach the standard milling ratio, it is possible to produce sake with taste equivalent to Ginjo or Daiginjo sake, due to its milling efficiency in reducing unwanted outer layer.

Furthermore, it mills rice with least amount of waste and reduces the cost of raw materials and ingredients. Mr Sato's pursuit of the ideal rice milling machine coincided with the machine's goals, and the new Satake machine became a part of the Aramasa in 2019. "The rice we use now is completely different than before," says Makoto Uematsu, Toji (master brewer).

"Rice produced in Akita Prefecture has a high protein content, and I knew that the flat milling process with Satake's rice milling machine would reduce the protein content of the rice, but the results exceeded my expectations," he continues. "We also perform primary rice milling before flat rice milling. At Aramasa, we want to make clean tasting sake with no miscellaneous flavours.

"In order to achieve this, it is necessary to mill the rice without leaving the germ of the rice. Since the germ is full of nutrients, it becomes a miscellaneous flavor in the sake, and it also makes the yeast more energetic.

"This means that the yeast will not be able to control itself after the sake goes to the main fermentation process, and the brewing will be finished in a short period of time, which will inevitably result in a lack of flavour.

"In order to prevent this from happening, it is better to remove the germ

properly beforehand, so the rice is milled first with Satake's Millmore rice milling machine, then the germ is removed, and the rice is milled flat to 65 percent milling ratio.

"As rice is grown without fertilisers and pesticides, the yield of rice production is inevitably small, but since we worked really hard on growing rice, we want to efficiently mill the rice in good quality to produce delicious sake without wasting a single grain. For this reason, primary and flat milling are indispensable," concludes Mr Uematsu.

All of the products in this year's Aramasa lineup, including the standard "No.6" and Colors series, with 65 and 55 percent milling ratio, use flat-milled rice. They are particularly proud of its lower priced Colors series Ecu.

### An industry to be proud of

Sake is a traditional industry that Japan should be proud to share with the world. However, the consumption of sake has been on a steady decline since 1975. One of the reasons for this trend, according to Mr Sato, is the inability to shed the outdated image of sake, which was mass-produced mockery that was sold during the period of rapid economic growth, with a "bad taste that gives you a headache."

One of the avenues that Mr Sato has chosen to change this image is that he is very meticulous about the design and label of each bottle. As he is a firm believer that a well-packaged product is also a guarantee of the high-quality contents.

Aramasa continues to innovate sake without being bound by stereotypes and is no longer just another brand of sake but has established itself as a new genre that represents Japan.

We are certain that Aramasa will continue to make sake that will remain in people's memories for a long time.

