

Blessings of the Sky and Land: Making Sake in Snow Country

Niigata Prefecture has been a center of sake production for centuries. Today, it has more sake breweries than any other prefecture and is known for crisp, dry sakes with a smooth finish—a popular flavor profile called *tanrei karakuchi*. Niigata's snow country provides ideal conditions to produce sake: soft water, plentiful rice, and long, cold winters for brewing.

Water comprises about 80 percent of sake's volume, meaning the quality of water used in brewing has a huge impact on the final product. Niigata's abundant snowfall fills its rivers, wells, and springs with soft water, which is low in dissolved minerals like iron, calcium, and magnesium that could impart unwanted flavors. In addition, while such minerals give a nutritious boost to the yeast used for fermentation, rapidly fermenting yeast can produce brash flavors. Soft water, on the other hand, slows fermentation and gives the sake softer, rounder flavors.

Rice, of course, is another essential ingredient in sake making. Rice accounts for about 60 percent of Niigata's agriculture, and the prefecture produces more rice than any other in Japan. The reason for this abundance is the climate. The region's heavy snowfalls provide lots of water, which is needed for growing rice in flooded paddies. In addition, as the snow at higher elevations melts and flows downhill to the paddies, it brings nutrients with it. The summer climate, too, provides ideal conditions for rice growing: long hours of sunlight, an average temperature of around 24.5 °C, and wide temperature swings between day and night. In autumn, those prime conditions yield heavy stalks that droop and sway with golden-yellow rice grains ready for the brewing tank.

Traditionally, winter is the season for sake brewing. Before the advent of refrigeration, the fairly consistent temperatures of the Niigata winter provided stable brewing conditions, helping brewers to more effectively control the activity of the yeast and koji mold used in fermentation. Additionally, there was ample labor available in winter. Farmers cannot work their land during the winter months, so there is a long tradition of farmers assisting in sake breweries as migrant seasonal labor. Modern refrigeration technology has made year-round sake brewing possible, but winter is still the busiest season for sake brewers—particularly smaller craft operations that use traditional brewing methods, such as snow-aging sake in snow houses called *yukimuro*.

Tokamachi brewers are part of the long history of sake making in snow country, deftly combining modern machinery with generational know-how to ensure this time-honored craft endures.