# How Sake is Made at SakéOne in Oregon

*by Carey Jones*

Note from the Author: On a press trip hosted by SakéOne, I visited Oregon to see firsthand how sake is made.

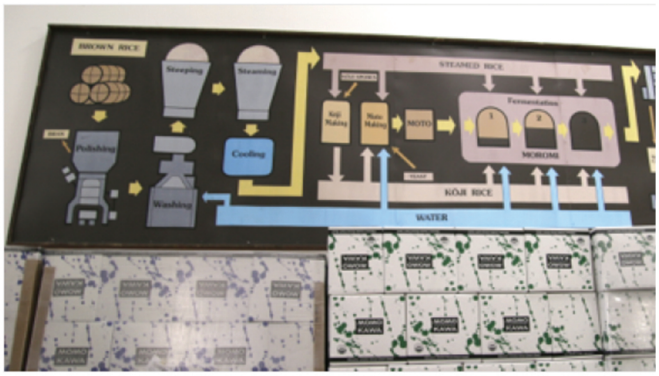

Breweries, wineries, distilleries; Portland, Oregon, and the surrounding area has them all. Its craft beverage scene is the envy of cities around the nation. But sake?

I'd never tried much American sake at all, in fact, until I encountered **SakéOne**, an Oregon craft sake producer that's one of only a handful of sake kura (sake breweries) in the nation.

Founded in 1992 as a joint venture with Japan's Momokawa Brewing, the company opened the doors of its kura in 1997 and began bottling sake by 1998. Head brewer Greg Lorenz joined in 2002 and still manages the brewing process today.

Lorenz and SakéOne president Steve Vuylsteke took me on a tour of the facility; read on to see the sake-brewing process and learn what distinguishes Oregon sake from Japanese.

## Sake 101




*This mural at SakéOne illustrates the brewing process... nothing to it, right?*

Need a little refresher on sake? Our "Sake School" series from a few years back delves into sake's history in much more depth. But let's start with the basics.

Sake is often referred to as a "rice wine," but in truth, its process is closer to that of brewing beer—breaking down starches into sugar before yeast converts them to alcohol. (To be fair, it's quite distinct from beer as well.) Each grain of rice is milled down, or "polished," stripping the fats and proteins from the outer layer and refining grains down to the starchier core.

Different types of sake are designated by the degree of milling: gingo, for instance, indicates that the rice has been polished down to 60% (that is, 40% has been stripped away); daigingo is at least 50% (fully half has been stripped).

Other important distinctions: honjozo means that some brewer's alcohol has been added to the final product; junmai means that none has. Genshu means that no water has been added at the end of the process; it's at the alcohol level it fermented to. (As with many spirits, water is often added back into sake to bring down the proof.) And nigori refers to sake that has been incompletely filtered, leaving rice solids in the mix for a thicker texture and cloudy color.

SakéOne makes junmai gingo sakes exclusively—so all its rice is polished down to 60% or lower, and no brewer's alcohol is added.

## The Water

At SakéOne, the water source is Hagg Lake, a nearby reservoir that collects coastal rainwater, runoff from the mountains to the west. The local water quality is a big reason SakéOne chose to locate its kura here; its mineral composition is similar to their partner brewery in Japan.

Some substances—phosphoric acid, magnesium—are good for sake; others, especially iron, can create off flavors and aromas. So after its initial filtering, the water goes through several additional processes—microfiltering with carbon filters, even a UV light. "We want the flavors that we want," says Lorenz, "not just whatever nature presents us."

## The Rice

"Winemakers will tell you that wine is made in the vineyards," says Lorenz; "sake is definitely not made the in rice fields." Different rice cultivars will express slightly different characteristics, but have nowhere near as much influence as, say, different grapes do in wine.

SakéOne sources rice from outside Sacramento, California, and uses the "Calrose" variety—the prominent medium-grain rice grown in the state. It's partly a matter of necessity; Lorenz considered importing rice from Japan, but quickly realized it would be cost-prohibitive, and generate a massive carbon footprint besides.

Japan does have a number of rice types grown specifically for sake, but after some research, Lorenz found that, decades back, Calrose was actually derived from a Japanese strain that's used in sake. "Fortunately, Calrose has a number of qualities that work well with the American palate," says Lorenz. "To generalize, Americans tend to prefer more body, higher viscosity, a long finish; and you get all that from Calrose."

The rice needs to be able to survive hours upon hours in the mill, which restricts the varieties SakéOne can use. Recently, Lorenz and Vuylsteke have started working with an individual rice grower in California, cultivating heirloom rices in hopes of finding an even better version for their sake.

While rice is still generally a commodity crop, and other factors have a huge influence on the flavor of the sake, the rice still plays a role. The Momokawa Ruby and the Momokawa Organic Junmai Gingo are made identically, except for the rice (the latter, obviously, organic). The differences are easily apparent in a side-by-side tasting: the organic is cleaner and sharper; the Ruby a bit richer, distinct in both mouthfeel, aroma, and flavor.

## Yeast and Mold

*Koji rice, after the mold and rice have come into contact for several days.*

Unlike beer, which makes use of a single microorganism, namely yeast, sake requires two: a yeast, and a mold, called koji. That mold exudes enzymes which aid in converting the rice's starch to sugar, which is then consumed by the yeast and turned into alcohol. (When the mold dies, the enzymes retain their functionality—it's not the mold itself doing the work, as is the case with yeast).

Yeast plays a huge role in determining the sake's flavor and aroma. Three of the sakes in SakéOne's Momokawa line—called Silver, Diamond, and Ruby—differ only in the strain of yeast, and the final flavor differences are obvious, with the Silver on the spicy, mineral side and the Ruby rich and fruity.

## Japan vs. America

*The SakéOne facility in Forest Grove, Oregon.*

SakéOne produces about a dozen sakes at their Oregon kura, and imports others from Japan. Originally founded in partnership with a Japanese sake producer, they hew closely to Japanese brewing practices. Nearly all of their equipment is imported; their rice, though California-grown, is derived from a Japanese strain; both Lorenz and Vuylsteke make frequent trips across the Pacific to visit other kura and learn from their techniques. Their yeast and koji are both Japanese. There's even a small Shinto shrine in the facility, and once a year, a priest comes down from a Shinto temple outside Seattle to perform a ceremony at the kura.

But SakéOne, they stress, creates its own style, with due respect to Japanese processes but a sense of experimentation, too. "In Japan," Lorenz says, "there are guilds of sake brewers, and their methods are prescribed by tradition. So they've got hundreds of years of experience to learn from—but that can constrain them, as well, since there's not always much tolerance for deviation." American brewers, already different enough by virtue of their location, don't experience the same pressures. "I like to think, through our partnerships in Japan, we can learn from their traditions and match that with our innovations."

SakéOne also faces practical and legal constraints that differ from Japanese producers. Liquor laws prohibit the addition of distilled alcohol to brewed alcohol, so honjozo, where some brewer's alcohol is added to the final product, is out altogether. While Japanese sake spans a number of styles not even mentioned here—some smoky, some aged, some with an extremely high rice polishing ratio—a single Oregon brewery doesn't yet have the resources to attempt that range. And SakéOne still buys rice in bulk

out of California; while they're happy with the results, they certainly don't have the incredible variety of sake rices available in Japan (and importing rice would be cost-prohibitive).

But with a focus on Western markets, SakéOne has the opportunity to refine their product for the American palate. "Americans, and of course this is a generalization, tend to go for bigger, bolder, more aromatic drinks," says Vuylsteke. "Those aren't necessarily valued characteristics in Japanese sake"—which often expresses subtler flavors, sometimes earthy, funky or mushroom-y.

And since the American market includes a vast number of drinkers who have never sipped a premium sake, creating entry-level products, so to speak, is another challenge. Like tequila ten years ago, say, sake has broad name recognition but is often thought of in very limited terms: served boiling hot in tiny cups, or dropped into beer as a sake bomb. For those inching their way toward higher-quality sake, SakéOne has a number of easier entry points: the fruit-infused Moonshine sakes, in flavors like Asian pear and coconut lemongrass; or the light, fruit-forward SakéMoto, actually produced in Japan in partnership with Hakutsuru brewery in Hyogo.

Of course, their distinct labels and English lettering make the sakes more accessible to American neophytes. And, since they're brewing domestically, SakéOne has the ability to get their product on the shelf more quickly. "Sake is best consumed as fresh as possible," says Lorenz, with the exception of Japanese aged sakes, a distinct minority. And some sake is best consumed really fresh. SakéOne produces a style called "Nama," unpasteurized and bottled as quickly as possible; it's so perishable that they won't sell it outside Oregon, since its quality would degrade too much in shipping. "When you pasteurize sake, you stabilize it, but you can lose some of those fun and interesting characteristics," says Vuylsteke. Just a few days old, the Nama we tried was light, crisp, and a hint effervescent, almost like a vinho verde.

## The Future

What's next for an American sake producer? It's a challenge, Vuylsteke and Lorenz readily admit. But with interest in beverages and spirits taking off like never before, they see a great deal of potential for growth. "In the last few years, the main trend has been 'premiumization.'" People are trading up in their drinking habits, choosing better beers, more interesting wines, higher-quality spirits.

"It's the natural progression of a beverage maturing to the next level," says Vuylsteke. "And we think sake is next."

**Check out the slideshow for a behind-the-scenes look at how sake is made »**