

The South River Miso Story

Turn-of-the-century techniques make a modern success.

By John Belleme

In Western Massachusetts' scenic Pioneer Valley, it's possible to catch a glimpse of another time and place. I am not referring to Old Deerfield, the beautifully restored eighteenth century village, but rather to a curious wooden building a short drive west from the village, in Conway.

Last winter I visited this building. Colorful Oriental chickens were scurrying around me as I slid open the heavy wooden door and stepped into preindustrial Japan. The sweet aroma of fermentation—a subtle blend of old wood, yeast, and alcohol—immediately wafted to my nose. I walked through a dark earth-floored room, housing two rows of large wooden vats, to the front of the shop. There I was warmly greeted by the owners of South River Miso Company, Christian and Gaella Elwell, who for six years have been making thousands of pounds of miso by methods that are all but extinct even in Japan.

Miso, a fermented soy food, is one of the world's most delicious and versatile condiments. Recent scientific studies in Japan have shown that miso is also a concentrated source of essential nutrients and a potent medicine. Since its introduction to natural foods cuisine in the late 1960s, Americans have used miso to enhance the flavor and nutritional value of all types of food.

Although a variety of naturally made misos is available in natural food stores, South River miso, due to its ingredients and manufacturing methods, is a unique cultural artifact, a remnant of taste and quality from Japan's centuries-old hand-crafted miso tradition.

The South River adventure began in 1979. With little building experience

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Elements of a traditional Japanese miso shop were incorporated into South River.

and only a three months' miso apprenticeship with Naburo Muramoto (author of *Healing Ourselves*) in Glen Allen, California, the Elwells set out to fulfill their dream of "back-to-basics" living and traditional food manufacturing. In one clean sweep they leapt back a hundred years in time. Even before making miso, Christian and Gaella had opted for a horse-drawn plow and were living without electricity. When the opportunity to purchase some used miso-making equipment came along, they jumped at the chance. Later, when they realized the immensity of the undertaking, they tried to sell the equipment, but found no buyers. And so, despite mounting anxiety, diminishing financial resources, and little experience, Christian and Gaella decided to take the plunge into miso-making.

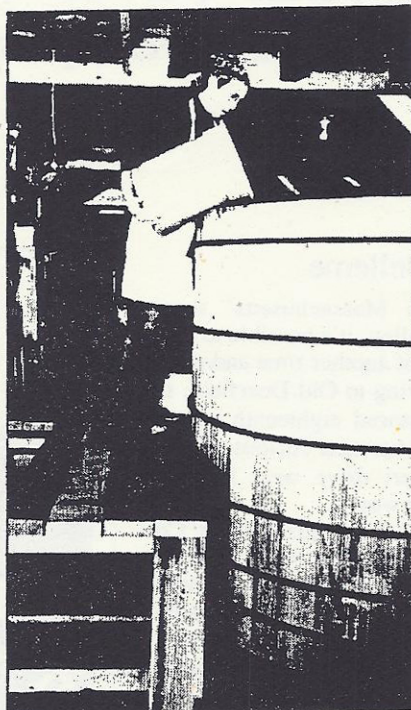
Christian's first challenge was to design and build a traditional miso shop. Never having visited Japan, he was not

aware that such a place is rare now in that country. However, studying illustrations of old Japanese wood buildings, he noted they were constructed in a manner that was similar to the traditional New England post and beam method. With remnants of an old barn and additional wood cut to order, Christian built South River's outer shell in a year.

Even more complex than the construction of the building was the designing of the shop. With the help of Bill Shurtleff (co-author of the *Book of Miso*) and *East West* contributing editor Thom Leonard—and using his intuitive understanding of traditional design—Christian set out to re-create a turn-of-the-century Japanese miso shop.

The most critical consideration was the choice of the energy source for cooking. While traditional miso shops used wood-fired stoves, modern miso factories use high-pressure steam generated by oil-fired boilers. At great expense, the

WHOLE FOODS



From top left counterclockwise: The shop at South River makes few concessions to modern technology, but the spotless stainless-steel washing tubs are one; Christian and son Isaiah pick through washed soybeans; barley koji is prepared by rubbing koji spores into organic barley; crushed raw miso is scooped from the "foot-treading" tub; Christian fills an 8,000-pound-capacity wooden vat that will ferment for the next two years.

Elwells built a large masonry stove to heat their 100-gallon cauldron. Christian recalls, "Once we made the decision to cook with wood, everything else fell into place." The result is that South River has the look, feel, and smell of an old Japanese miso shop.

I was surprised at how closely South River resembled the old miso shop I studied at in Japan. Like the older parts of that 300-year-old Onozaki shop (see *East West*, April 1981), South River's roof and white-lime plaster walls are supported by massive timbers held together with large wooden pegs. The living quarters

of both the Onozakis and Elwells are attached to their shops. Christian and Gaella and their two children, Ann (eight) and Isaiah (four), live in a cozy loft above the working space. Even before making miso, the Elwells anticipated it would be a way of life.

With the shop complete, the Elwells took up the challenge of making miso. Cooking over 200 pounds of beans and grains at once, they were able to make almost 1,000 pounds of miso in one batch. There were many uncertainties. Christian recalls, "We agonized over whether the thousands of pounds of miso we were put-

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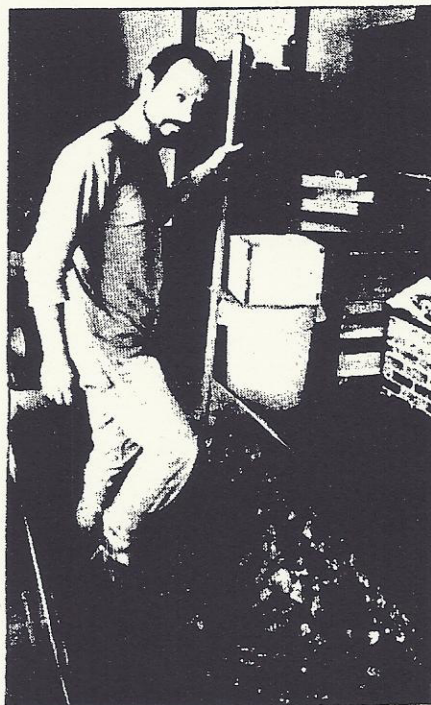
ting in vats would turn out okay." They had to wait for two years to find out! If you are one of the thousands of Americans and Canadians who use South River miso, you know the end of the story: the miso was superb. In fact, this year South River Miso sold out of two-year barley miso, its most popular variety.

To appreciate the quality and unique character of South River miso, it is helpful to understand the basic miso-making process. Cooked soybeans are mixed with koji (grain inoculated with *Aspergillus* mold), salt, and water. This mixture is placed in a container to ferment. Gradually the enzymes supplied by koji, along with microorganisms from the environment, break down the complex structure of beans and grains into readily digestible amino acids, fatty acids, and simple sugars. When making light, sweet miso, manufacturers use more koji (enzymes) and less salt, and ferment for only about one to three months. For dark, hearty miso, more salt and less koji are used and fermentation time is increased to one or two years.

The quality of miso, like other manufactured foods, depends on the quality of ingredients and on the specific manufacturing methods employed. The Elwells have gone the extra mile in both respects. According to Christian, "We use only organically grown ingredients of the highest quality from reputable sources, in most cases from farmers with whom we have direct personal contact." South River's barley, for example, is purchased from a small Canadian organic farmer who grows a hardy, 500-year-old seed strain rather than the modern hybrids used by most other farmers.

When choosing manufacturing methods, the Elwells were motivated by a desire to use traditional technology. While modern miso-makers cook and cool beans rapidly (one to two hours), using high-pressure cookers and cooling machines, at South River they slowly steam beans for eight to ten hours and let them naturally cool overnight. The process takes twenty-four hours. The result is a dark, soft bean with a characteristic smoky, somewhat tart taste. Also, while modern factories make every effort to keep wild yeast and bacteria out of their miso in an attempt to strictly control the results, South River encourages the incorporation of wild organisms—the koji is made at natural temperatures by a labor-intensive hand process. As a result, South River miso, like its nineteenth century counterpart, has a unique taste not found in high-tech misos.

South River's final link to its ancient heritage came quite by accident, during the second year of production, when its electric bean crusher suddenly stopped working. With mounting anxiety, Christian contemplated the loss of 250 pounds of beans and the possibility of having to temporarily close shop. However, Gaella coolly reminded Christian that he had always wanted to crush the beans the traditional way, under foot. "This is a perfect opportunity," she pointed out. Christian slipped plastic bags over his feet, tied them firmly at the ankles, and



Author John Belleme joins the select few who have tread fresh miso.

stepped into the annals of miso history. The Elwells are probably the first Caucasians to make miso by hand and foot.

As I watched this primitive dance, time slowed down. Supporting himself with a pole, Christian rhythmically brought one foot down close to the other in short deliberate steps while adding salt, koji, and the rich, thick, amber-colored cooking liquid from the beans. Gradually Christian moved around the four-by-eight-foot tub of ingredients until it was transformed into 500 pounds of raw miso ready to be aged in 8,000-pound-capacity wooden vats.

When Christian invited me to crush the second batch, I stepped into the ankle-

deep mixture with mixed feelings, but was soon soothed by the pleasing sensation of the warm paste underfoot. This "foot-treading" method, as Christian calls it, gives South River miso its unusual texture.

Using only organic beans and grains, sea salt, deep well water, and natural aging in wood, South River makes 40,000 pounds of nine types of miso annually. From long-aged barley and brown rice miso to sweet barley and golden millet miso aged only three months, each type has a character and integrity of its own.

As the yearly cycles of miso-making have come and gone, the Elwells have gained confidence in their ability to make high-quality miso that Americans can enjoy. But Christian and Gaella sometimes feel they are straddling a cultural fence, with one foot in feudal Japan and the other firmly planted in twentieth century New England. Christian says, "Sometimes I wonder if Americans should be making miso."

South River, however, is actually a synthesis of East and West. For example, the characteristic background taste of traditional Japanese miso is imparted by natural oils from cedar vats used in fermentation. South River uses only old wine and whiskey vats made of cypress or oak, which creates a unique "American flavor." The Elwells are also continually experimenting with original combinations of ingredients. *East West* hailed South River flint corn miso as a "Western classic" in its March '86 anniversary issue.

According to Christian, "We make miso the traditional way because we have no choice. It's the only way that feels right." As I climbed into my car for the drive back to North Carolina, I contemplated his words and the paradox of South River miso. While American businessmen and scientists alike marvel at the flexibility of Japanese industry and its ability to improve Western technology and sell it back at a profit, the idea of a young New England family living in a one-room loft over their miso shop, making 40,000 pounds of miso annually by methods found in Japanese history books, is beyond the imagination of most Japanese miso-makers. But should the oil stop flowing, the Elwells could continue making miso while high-tech Japanese miso factories would be forced to stop. The Japanese have borrowed our modern technology; the Elwells have borrowed Japan's ancient technology. This particular cultural exchange may prove to be a better deal for the Americans. □