

# FOOD OBSERVER

## Wasabi—The Real Thing

Can North American growers tame the prized Japanese horseradish?

**A**FTER 1,000 YEARS of cultivation in the gravel beds of Japan's mountain streams, wasabi remains an elusive mystery. Tough to grow, bewitchingly spicy yet subtly sweet, true wasabi is a coveted condiment, especially among sushi purists who pay up to \$100 a pound for the real thing, which is traditionally grated on sharkskin just before serving.

Most North American sushi lovers have never tasted authentic wasabi, *Wasabia japonica*, sometimes known as Japanese horseradish. In fact, nearly all the prepared wasabi products on the American market are a blend of common horseradish, Chinese mustard and green food coloring.

There's nary a shred of precious real wasabi in the blend. True, the market mix most of us know delivers a refreshing wallop that starts at the tongue

and ends at singed nose hairs, but aficionados lament the lack of finesse and characteristic sweetness of the real thing. Furthermore, true wasabi packs a powerful phytochemical punch that may help fight an array of ailments from tooth decay to cancer.

The delicate flavor and pure heat of wasabi is the result of millennia of pristine growing conditions, beside babbling streams in Japan's mountain forests. That's a difficult environment to replicate, says wasabi grower Steve Archer of Pacific Coast Wasabi in Vancouver, British Columbia.

"Even in the controlled environment of a farm, wasabi plants don't ordinarily create seeds on their own," he says. "Wasabi is also extremely sensitive to humidity and light, and even the temperature

range at which it will thrive is very narrow."

To help the fussy plant adapt to its new home in the west, Archer and his partners designed a system of hydroponics using low volumes of water to cultivate semi-aquatic wasabi. In addition, they monitor variables from humidity to shade with exacting precision.

Not surprisingly, all this finesse comes at a price. A 1.5-ounce tube of real wasabi

from Pacific Farms in Florence, Oregon, delivers about 9 teaspoon-sized servings and runs about \$4, compared to \$2.79 for a comparably sized tube of common horseradish "wasabi."

Powdered wasabi is even more precious: \$80 for 80 grams, compared to about \$9 for a similar amount of powdered horseradish. If you want fresh, semi-aquatic wasabi rhizomes—the most coveted wasabi on earth—you are quickly into the \$100-per-pound range.

Unleashing the flavor and health benefits of wasabi is a ceremony in itself. Grating the rhizome, a woody stem, and exposing it to water triggers a chemical process among the plant enzymes that creates compounds called isothiocyanates. The more finely the

**Left:** Young wasabi plants in semi-aquatic farm conditions. **Top:** Canadian-grown true wasabi paste.

### WASABI SOURCES

For the kick of real wasabi rhizomes in a variety of forms:

**Pacific Farms Wasabi**, Florence, OR ([www.freshwasabi.com](http://www.freshwasabi.com))—paste, salad dressings, live plants

**Pacific Coast Wasabi**, Vancouver, BC ([www.wasabia.ca](http://www.wasabia.ca))—rhizomes, powder

**New Zealand Wasabi Limited**, Warkworth, NZ ([www.wasabi.co.nz](http://www.wasabi.co.nz))—powder, extract capsules



rhizome is grated, the more potent the isothiocyanates; hence, the traditional sharkskin grating. In addition to lending wasabi its famous heat, isothiocyanates are a family of cancer fighters that stimulate the body to produce enzymes that detoxify carcinogens or expedite their excretion, according to Jed Fahey, a research nutritionist on the faculty of the Department of Pharmacology at the Johns Hopkins School of Medicine in Baltimore. To date, there's no health data comparing true wasabi to mustard-horseradish blends.

Real wasabi's heat can be a fleeting experience, ruined by overheating or liquid dilution. To best enjoy a jolt of flavor and function, add wasabi to food after the food is cooked, spreading it directly on fish or other foods or blending it with oil or mayonnaise to stabilize the isothiocyanates. Step two: eat it promptly.

—Steve Werblow

