Farm to Table

COFFEE

Many people can't—or won't—live without their daily coffee, and, in Hawai'i, we're lucky enough to have farm-fresh beans to brew. To find out more about how coffee gets from the farm to your table, we chat with Hawai'i's coffee Ph.D.

BY LAVONNE LEONG

PHOTOS: OLIVIER KONING

"Dr. Coffee," Shawn Steiman, surrounded by coffee plants at Waialua Estate and Coffee Cacao.

SMALL PRODUCERS, BIG FLAVOR

The birth of a new coffee sensibility.

Americans are on intimate terms with coffee. We consume about 400 million cups of the stuff every day. We wake up with it; work with it; date with it; pull all-nighters with it. By now, you'd think we'd know something about our favorite little brown bean.

Yet, in an age of increased interest in eating local and knowing your farmer, the back-story of coffee remains relatively unknown, in part because of a supply chain that can read like a Lonely Planet guide. It's not uncommon for coffee to be grown and harvested in one country, undergo multi-step processing in another and be consumed in a third.

Except here. Hawai'i is one of the few places on Earth that both produces this strictly tropical crop and enthusiastically consumes it. The global field-to-cup timeline of coffee can be up to a year; in Hawai'i, it's possible to go from harvest to table in a few days. Vertical integration is also becoming more common in Hawai'i—where a single farm, or a farm and a nearby roaster, take the coffee all the way from harvest to roasted bean rather than specializing in only one step in the process.

Vertical integration: an easy catchphrase to drop, harder to accomplish well. A true field-to-cup coffee producer needs to master a mind-boggling array of skills: farming, processing, roasting, marketing and distribution.

Enter Shawn Steiman, scientist, consultant and self-described "coffee geek." To Steiman, and others like him who are helping to usher in a new age of Hawaiian coffee, the creation of a good coffee is an achievable art—and a science that can be taught. Steiman has translated a love of coffee that began in elementary school into a coffee-centric horticultural dissertation and a career mentoring coffee farmers and producers across the globe. He also educates the public palate here in Hawai'i through coffee "cuppings"—a centuries-old practice that is equivalent to wine tasting.

Steiman feels that the time is right for producers of artisanally made coffee—also known as specialty coffee—to find a wider audience. America, he says, is riding the "third wave" of coffee consumption (the first is coffee as a diner commodity, the second a Starbucks-type lifestyle choice, and the third, a deep appreciation of coffee's origins, craft and subtlety).

For some, it's an obsession: coffee's third wave has spawned an intense culture of cupping and barista competitions, avidly read reviews of specialty coffees, "trip to origin" tours and a descriptive coffee-tasting vocabulary that approaches wine's: an interesting coffee might offer aromatic notes of fruits and flowers, chocolate, caramel, herbs and even fir tree. "Coffee geeks are attached," says Steiman. "They're passionate. These people have espresso machines they can, and will, tweak to a 10th of a degree."

You don't have to be a coffee geek to appreciate that coffee folks in Hawai'i are upping their game—and all of us who like something good in our cup will benefit.

Lorie Obra

Something is happening in the world of Hawai'i coffee. For years, big growers dominated the scene, and Hawaiian coffees, particularly the sought-after Konas, were routinely blended with inferior product to make them more affordable—a practice that diluted not only the coffee but, eventually, its reputation. Now, with sustainability and fair-labor practices at the forefront of farming, tastes evolving to appreciate coffee excellence and thousands of acres of prime farmland released by the sugar industry, smaller coffee farmers, boutique roasters and purer coffee are getting more play. In two decades, Hawai'i has expanded from one coffee region to 11, and the coffee world at large has taken note. In 2008, Hula Daddy's "Kona Sweet" coffee received a score of 97, the highest *Coffee Review* ranking in the world that year and the publication's third-highest rating in history. A Hawai'i-based barista, Pete Licata, of Honolulu Coffee Co., won this year's highly competitive Western Regional Barista Competition with a blend of Kona and Maui coffees.

The birth of the Ka'u coffee region, which was planted in the 1990s and 2000s, is a prime example of this new dynamic. Less than 15 years ago, Ka'u was dominated by its sugar mill. Today, dozens of small farms, many of which belong to the Ka'u Coffee Growers Co-Operative, are making a name for the region by producing exemplary coffee. Some, like the co-op's president, Lorie Obra (of Rusty's Hawaiian coffee), have gone for complete vertical integration. Obra supervises the entire process from field to cup, experimenting with unusual methods such as salt-water fermentation. Her coffees have garnered reviews from the industry's standard publication, *Coffee Review*, which used words like "mindblowing."

Since they burst onto the competition scene a few years ago, Ka'u coffees have consistently garnered top prizes; this year, Ka'u's Rising Sun Farms was named Coffee of the Year by the Specialty Coffee Association of America in the Hawai'i-USA category. Alan Wong, who serves four Ka'u coffees in his flagship restaurant, says, "What makes Ka'u coffees so delicious is their terroir—you can 'taste the land.' They have a special combination of rich volcanic soil, rainfall, sunlight and humidity."

PHOTOS: COURTESY JOAN OBRA; RALPH GASTON

BIOGRAPHY OF A BEAN

FARM BEGINNINGS Hawai'i is the only state in the U.S. that grows coffee, a crop with very specific temperature requirements and a love of volcanic soil. Although Kona-grown coffee has been produced for more than a century, the perfect planting opportunity occurred in the 1980s and 1990s when the withdrawal of sugar freed up some of Hawai'i's most fertile planting grounds.

PUTTING DOWN ROOTS Left to its own devices, the coffee plant will grow into a small tree, about 30 feet high and covered in fragrant, white blossoms. Most growers prune their coffee plants for easier harvest; farmed coffee rarely reaches more than about 10 feet high. Although coffee evolved to love shady places, it produces more fruit in direct sun—as long as it's given more fertilizer and water, too.

GETTING PICKED Three years after planting, coffee trees begin to produce a round, red, juicy fruit known in the industry as a cherry. (The skin and pulp don't taste like much, but the interior mucilage is sweet and packs a caffeine punch.) Because coffee cherries don't mature all at once, and the fruit needs to be ripe to produce good coffee, growers often harvest by hand. At higher elevations, the coffee harvest can last for nine months a year—ideal for smaller growers who can keep a small staff or harvest the fruit themselves.

THE LAYERS COME OFF A coffee bean is simply the seed of the coffee cherry. The fruit must be separated from its seed, and the seed from its thin outer layers of parchment and silverskin. There are a host of ways to do this, each of which affect the coffee's final taste. Big growers tend to favor mechanical processing, while many smaller growers process by hand. A current trend is "natural-" or "raisin-" -processed coffee, which is left to dry inside the cherry and can produce fruitier coffees. Most coffee cherries are pulped, briefly fermented to separate the bean from its mucilage, then the bean is air-dried to the parchment stage. Green coffee beans, the end product of processing, can last for several months without losing quality.

THE HEAT IS ON "Green coffee is to roasted coffee as a raw grain is to baked bread," says Hula Daddy roastmaster and coffee consultant R. Miguel Meza. The roast—the application of heat for between 10 and 20 minutes—is where a hard, uninteresting green bean can become a thing of aromatic beauty. Sugars caramelize, acids restructure and aromatics develop, to the tune of about 1,500 different chemical compounds. This makes coffee "probably the most complex food we consume," says Shawn Steiman. "There are over a thousand things in the aroma alone." Once the coffee is roasted, it's at its peak of flavor and the freshness clock starts ticking. A coffee geek will notice the difference in about two weeks; a layperson, in four to six.

GRIND AND BREW The finishing touches to the art of coffee lie with you, the drinker. All coffee beans must be ground before use, releasing aroma and flavor; grinding your coffee at home, on the day it will be brewed, means that all the flavor ends up in your cup instead of your storage cupboard. Given the choice between blade grinders and burr grinders, choose the burr, which produce a more uniform particle size and a smoother brew.

PHOTO: COURTESY RALPH GASTON

Coffee cherries from Milton Decalio's farm in Ka'u.

Kona has been producing coffee continuously since the 1870s.

COFFEA

All coffee plants come from the genus Coffea, which—although it contains 103 species—produces two drinkable bean types: *Coffea canephora*, commonly called "robusta" and used in commodity coffees, and *Coffea arabica*, which produces the complex, lyrically flavored bean used in artisanal and specialty coffees worldwide. Hawai'i grows only arabica coffee.

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Shawn Steiman (center in photo at left and also at far right) leads a group in a "cupping," at the Honolulu Coffee Co.'s Ala Moana Center location.

PHOTOS: OLIVIER KONING

KONA COFFEE

For the most part, Hawai'i coffee is grown on former sugarcane lands that were freed up in the 1980s and 1990s—but not Kona. Kona's sloped terrain meant that sugarcane was never an option; the region has been producing coffee continuously since the 1870s.

THREE PLACES TO SCORE A HAWAI'I COFFEE EXPERIENCE

Try the freshest coffee in the United States. Here's how.

1

CHAIN: Honolulu Coffee Co.
The Honolulu Coffee Co., which has a new owner, roasts its Hawaiian coffee in small batches. You can buy the beans, or let the company's award-winning baristas show you how it's done in one of seven coffeehouse locations that serve 100-percent Kona and 100-percent Maui coffees, alongside house blends.

2

RETAILER: Whole Foods
At its Kāhala store, Whole Foods carries coffees from all five coffee-producing Hawaiian Islands: Maui, Moloka'i, O'ahu, Kaua'i and the Big Island. A particular specialty is peaberry coffee, which is sometimes said to roast more evenly and produce a smoother-drinking cup.

3

RESTAURANT: Alan Wong's
Alan Wong's makes a special effort to not just cook local but to drink local. The menu features no fewer than 13 Hawaiian coffees, eight of which are from the Big Island.

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In 1888, King David Kalakaua enacted the first quarantine in Hawaii to control imported coffee plants.

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GOING TO THE DARK SIDE

What a difference a roast makes.

Most coffee is roasted dark. There are some great darks out there, but this approach doesn't always match the bean. There is a growing appreciation for light or medium roasts, which can showcase coffee made with care.

LIGHT ROAST: "Acidity and subtle aromatics will be at their peak" in a light roast, says Hula Daddy roastmaster R. Miguel Meza. This can produce some truly memorable coffees, but he cautions that, in order for a light roast to work, "the coffee must be exemplary."

MEDIUM ROAST: Medium roasts strike a balance between nuance and body, sacrificing a little complexity for increased sweetness and mouthfeel as sugars caramelize.

DARK ROAST: Think Starbucks—and there's nothing wrong with that. Roasting dark averages out differences in taste, conceals minor defects and introduces familiar smoky notes. Dark roasts also hold their own against added sugar and cream.

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PHOTO: OLIVIER KONING

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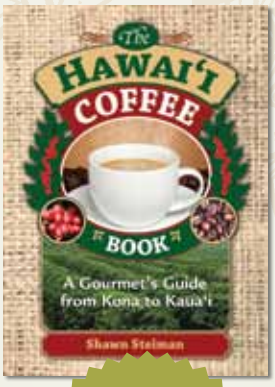
Rusty's Hawaiian Farm

QUARANTINE

In agricultural terms, Hawai'i is probably the best place in the world to be a coffee farmer, says Shawn Steiman. In 1888, King David Kalākaua enacted the first quarantine in Hawai'i, to control imported coffee plants; as a result, Hawai'i is free of the worst pests and diseases that plague other coffee crops worldwide.

PHOTO: RALPH GASTON



MORE INFO

Want to read about your local brew? Check out Shawn Steiman's *The Hawai'i Coffee Book*, published by Watermark [a sister company to HONOLULU Magazine].