

GREAT BALLS *of* FIRE

Considered by many to be “the mother of all peppers,” chiltepinos are the only chiles native to Arizona. They grow wild; they look like miniature, red Christmas tree ornaments; and, man, are they ever hot.

CHILTEPIN PEPPERS are tiny things. Almost cute. They’re invariably described as “pea-sized,” but they appear even smaller than that. Shining in the sun on a December afternoon and brightening their shrubs with pixels of red, the chiltepinos resemble minuscule Christmas tree ornaments.

I’m examining the ripe chiles on a chiltepin bush at the conservation center for Native Seeds/SEARCH, the Tucson-based organization dedicated to preserving stocks of seeds from indigenous Sonoran Desert plants. Kevin Dahl — a Native Seeds board member until recently, and the organization’s executive director before that — has brought me here on a meandering tour around Tucson to better acquaint me with what many people call “the mother of all peppers.” The chiltepin is the only chile native to Arizona, and Dahl says it’s considered the closest wild relative to domesticated chiles.

To truly know the chiltepin, you have to eat one fresh, straight off the plant. But considering these chiles’ fiery reputation, I hesitate before taking the first bite. Diminutive though they may be, chiltepinos inspire respect bordering on rever-

ence for their smoky flavor and fiery kick.

In my younger and less vulnerable years, I was an adherent to the philosophy that it’s not a real meal unless you break out in a sweat. My father served in India, China and Burma during World War II

and returned with a penchant for hot foods. As the first wave of Thai and Indian restaurants came to our Chicago neighborhood in the 1970s, he introduced the family to the sublime pleasures of dishes prepared with Thai and Kashmiri chile peppers. There was no higher praise around the table than the assessment: “It’s really, really hot. But good.”

Over the years, just as my vertical leap lost the fundamental element of verticality itself, my tolerance for extremely hot foods has also gradually dwindled. I’ve become the anti-Anthony Bourdain: increasingly timid around unfamiliar, spicy dishes.

But last year, while studying a map of Southern Arizona, I noticed a location called the Wild Chile Botanical Area in the Tumacacori Highlands, near Nogales. Growing as far south as Central America and northern South America, chiltepinos reach the northern limit of their natural range in the U.S.-

BY MATT JAFFE
PHOTOGRAPHS BY BILL STEEN



Mexico borderlands; in fact, Arizona is the farthest north that wild chiles are found anywhere in the world. Twenty years ago, Native Seeds/SEARCH worked with the U.S. Forest Service to establish the botanical area as a genetic reserve to protect, among other things, the largest concentration of chiltepin plants in the United States.

Before discovering the wild chile area, I’d never heard of chiltepinos by name, but in retrospect, I had seen them many times. They’re the little dried or pickled chiles you see in jars at some of Southern Arizona’s traditional Mexican restaurants. Chiltepinos become ubiquitous once you cross the border into Sonora, and some studies suggest that people in Mexico have eaten chiltepinos for nearly 10,000 years.

There’s an oft-quoted bit of Tarahumara tribal lore that says, “The man who does not eat chile is immediately suspected of being a sorcerer.” I’m more saucier than sorcerer, and my curiosity finally gets the best of me. The chile puts up the slightest resistance as I pluck it from the plant. Then I take a nibble, biting the chiltepin in half and exposing a cross section that reveals the seeds that harbor so much of the heat.

Dahl will have none of it. “You’re cheating,” he says. Prompted by his taunt, I tackle the rest of the chiltepin.

How do you describe “hot”? What’s the opposite of “numb”? The chiltepin’s burn immediately spreads through my mouth,

intensifying as it goes. The ripe fruit is much hotter than its dried form, and just as I’m starting to wonder when peak chiltepin will be reached, the sensation starts to mellow. Even so, a noticeable heat lingers, from my lips all the way down to the roots of my teeth.

For a few minutes, as my nose runs, I feel like I’m glowing from within. That bite of chiltepin is a concentrated blast of the Sonoran Desert itself: what the sun, the earth, just enough water and some hungry birds can produce.

BACK IN 1912, a pharmacologist named Wilbur Scoville took it upon himself to quantify the intensity of capsaicin, the chemical compound that gives chiles their heat. Working for a pharmaceutical company, Scoville was interested in salves, not salsa, and wanted to calculate the proper concentration of capsaicin for a topical painkiller his company produced. He developed the Scoville Organoleptic Test, a process that measures the intensity of chiles by ranking them in Scoville heat units, or SHU.

Coming in at a searing 2 million or more SHU, the Carolina reaper, a cultivar, is currently ranked as the world’s hottest pepper, although an ongoing chile arms race to develop even more scorching peppers perpetually threatens to topple it from the throne. Meanwhile, there’s a whole subgenre of YouTube

videos showing people's reactions after biting into a Carolina. Hijinks ensue as the reaper wreaks weeping, retching and writhing, in no particular order. Definitely not safe for work.

By the reaper's extreme standard, the chiltepin, topping out at an estimated 100,000 SHU, is relatively mild. But only by that measure. The chiltepin is at least 10 times hotter than your average jalapeño, and unlike the Carolina reaper and those Frankenpeppers still to be grown, the chiltepin comes by its heat naturally.

Raised in Patagonia, Native Seeds retail manager Chad Borseth endured a coming-of-age moment unique to the U.S.-Mexico borderlands. "Chiltepins have kind of always been in my life," Borseth says. "My first experience was in first or second grade, and almost everyone I grew up with and went to school with had the same experience. One way or another, someone had tricked them into trying a chiltepin, saying that it was a sweet berry.

"A kid would come over with a handful that they had picked off a bush and say, 'Here, try this.' Once you got suckered in and suffered through that, you would jump on the bandwagon and get other kids to try it. That was the game. So you get used to chiltepins pretty quickly growing up in Southern Arizona."

Borseth recalls going over the border at Nogales and seeing people selling 2-liter bottles of chiltepins by the side of the road. Chiltepins grew in the washes around Patagonia, and the parents and grandparents would grind the dried chiles and put the flakes into soups, although the kids steered clear of them. But as Borseth got older, chiltepins gradually worked their way into his daily food routine, too. Now, he's starting the Sky Island Spice Co., which will produce a mesquite-smoked chiltepin.

Borseth found his inspiration in the chiltepin's close relationship with mesquite trees. Chiltepins often take root beneath mesquites, benefiting from a touch of shade during summer and thermal protection in winter. The latter reduces the danger of frost, the most significant threat to the plant. Birds perch in the mesquites and feed off the chiles, then spread the chiltepin seeds over a wider area.

Unlike mammals, which are vulnerable to the chiles' intensity, the birds lack the necessary taste receptors. Instead of serving as a warning, the ripe fruit's crimson hue signals to mockingbirds and thrashers, among other species, that the chiltepins are ready to eat. And eat the birds will, sometimes gorging themselves. Hard shells allow the seeds to pass through the birds mostly intact. And with poop come peppers.

CHILTEPINES HAVE LONG PLAYED a role in the lives of desert dwellers. The name "Tumacacori" is believed by some to derive from a word in an ancient Tohono O'odham dialect meaning "place where the wild chiles grow." For much of the year, chiltepin bushes, partly concealed beneath mesquites and hackberries, blend anonymously into the landscape. With well-timed and sufficient monsoon rains, the fruit ripens, typically in September and October. Then a rite of fall begins as Tohono O'odhams and other Sonoran Desert residents on both sides of the border go out to gather chiltepins.

Chiltepins are challenging to cultivate as a commercial crop, so virtually all of them are wild-harvested for sale by gatherers known as chiltepineros. Borseth says that by weight, chiltepins are currently the fourth-priciest spice in the world. Many people harvest them for family and friends because, in addition to culinary uses, chiltepins offer medicinal benefits. A couple of the tiny chiltepins have roughly the same amount of vitamin C as a typical orange. They're turned into salves for topical pain relief, and their antibacterial properties can help with digestion and stomach problems.

When Tucson earned recognition as the country's first UNESCO City of Gastronomy in 2015, the designation brought new attention to chiltepins and other desert foods. Dahl and I have lunch at Sixth Avenue's Exo Roast Co., where a faded painted advertisement for a long-lost business called the Market Inn covers one of the brick walls.

We both order the chiltepin cold brew coffee. Fatty acids from truffle chocolate and cream tamp down the heat of the peppers, which still assert themselves with a lingering warmth that plays beautifully off the coffee's chill. "I usually just drink black coffee," Dahl says. "I never have coffee with milk. But these? These make me very happy."

He introduces me to Exo manager Amy Smith. The Oregon native looks a bit like another Amy — actor Amy Adams — and she explains that the chiltepin cold brew symbolizes the roaster's commitment to Sonoran foods.

"When we first opened, we wanted to do some drinks that were regionally unique, and chile peppers came up immediately," Smith says. "And flavor-wise, chiltepins are a really appealing pepper to drink because it has quick heat that diminishes. A jalapeño coffee would stay on your palate too long. The acid is just too much. But the profile of the chiltepin works really well. It's especially popular in summer, because it actually cools you down."

For every 5 gallons of coffee, about 50 grams of chiltepins are added, and the crushed peppers soak in the cold brew for 24 hours. The café buys about 50 pounds of chiltepins per year. They're sourced from a few places in Sonora and cost \$60 to \$75 per pound. Exo also gets chiles harvested by ranchers in the Northern Jaguar Reserve, the preserve created to protect the northernmost population of the cats.

After lunch, Dahl drives us to a friend's house. Despite its location in the middle of Tucson, the community still feels con-

nected to the desert, with narrow lanes running past stands of mesquites, thickets of prickly pears and agaves growing on dusty lots.

Dahl wants to give me some quality time with chiltepins, so we're going to play chiltepinero and harvest ripe chiles ourselves. It's Dahl's Tom Sawyer moment: He crafts glass ornaments that he fills with dried chiltepins, then donates to Native Seeds for the organization to sell over the holidays. And I'm helping him gather the chiles he needs to make them.

Although Tucson is north of the chiltepin's natural range, the plants do quite well when planted in gardens. Given a microclimate with a south-facing wall or large boulder to put



off a little extra heat, plus a source of water, they can thrive. The birds do the rest, and the plants quickly spread. They grow fast, too: A chiltepin seedling planted in spring will produce chiles by fall.

We settle within the dappled sunlight scattered by a mesquite and begin gathering chiles. A Gila woodpecker calls from a nearby yard, and wearing a pair of surgical gloves for protection (Dahl goes barehanded), I get to work picking the chiles, one by one. Some are nearly round, others more oval in shape. Most point upward above the leaves, as if imploring the sun for warmth, while a few dangle, pendant-like, from the shrub. It's meditative work. I leave the dried chiles and unripe green fruits on the bush, but I also never manage to finish collecting all the red ones from any single plant. As we get ready to leave, I notice Dahl has harvested twice as many as I've gathered.



A FEW DAYS LATER, I head over to Mercado San Agustín, west of downtown, to talk with Gloria and Huemac Badilla. The Badillas operate Chilttepicca, a company that prepares a chiltepin-based salsa and packages dried chiltepins. They've brought a box of pan dulce, and Huemac comes back to our table with cups of Mexican hot chocolate. We're sitting right by the mercado's commercial kitchen, where the couple first made their salsa.

Huemac grew up in Caborca, Sonora, and chiltepins were always part of his household. "In my house, always in the middle of the table, there was something like this," he says as he takes out a traditional wooden grinder shaped more like a jalapeño than a chiltepin. "My father, on his scrambled eggs, he'd put on at least eight. Just to start the morning and wake up. Every day. When you move, you learn that not everybody grew up like that."

One New Year's Day, around the time the economic crisis hit about 10 years ago, the Badillas looked ahead and wondered what they would do if they lost their jobs. Gloria, whose family left Los Mochis, Sinaloa, when she was 15, worked in accounting while Huemac drove for Anheuser-Busch. "We thought, *Oh, we'll make salsa and sell it.*" Gloria recalls. "Because usually, for any gatherings, people would say, 'You guys are in charge of the salsa.' That was our thing. It's Huemac's family's recipe."

Chilttepicca slowly emerged from that conversation, and its roster of products has expanded to include chiltepin sea salts and a chorizo that incorporates the chiles. Huemac didn't want to make the chorizo. His father worked in a meat market, and when Huemac was in high school, he was put in charge of the chorizo: "I would go to school in Caborca and smell like garlic. Seventeen years old and smelling like garlic? That is not good."

There were setbacks and challenges. Gloria, energetic and upbeat and not one to take no for an answer (or no answer at all), staked out the health department as the couple tried to get the necessary permits. "I went there about 10 days in a row after work," she says. "I noticed they were giving me the runaround, basically. After a while, the receptionist would tell Karen, the woman I needed to talk to, that her 4:30 standing appointment was here. I showed up until my file got pulled. But we became really good friends with Karen. Afterwards. Afterwards."

The year the couple started their business, a freeze struck Huemac's uncle's ranch, destroying their source of chiltepins. Their friends thought the Badillas were crazy. But the couple persevered and eventually found a dependable, high-quality source of chiltepins from a grower who raises about 6,000 plants in a wild, but controlled environment on a farm about two hours east of Hermosillo, Sonora's capital.

The success of Chilttepicca, like Exo's coffee and the chiltepin-infused beers made by a few Arizona craft brewers, represents a growing awareness of Arizona's native chile beyond its traditional Mexican community. "Most of the nanas and *tias* and moms will still make salsa at home," Gloria says. "You cannot compete with that; it will always be their family's favorite. But now we're selling in Costco and feel very blessed for the opportunity that very few people get. We're immigrants to this country. And this is our American dream." **AH**