



hen last heard from (that would be the Winter issue), photographer Frank Barnett and I had our noses in a brewer's cut at Indie Hops. A few days later, we were being shown around the Food Sciences Pilot Plant by Professor Tom Shellhammer at Oregon State University.

As he explained, a gift from Jim Bernau, owner of Nor'Wester Brewery and president of Willamette Valley Vineyards, served as a catalyst for starting the Fermentation Sciences program in 1996. One of the first things I spotted, as I glanced around at the stainless-steel fermentation tanks, was one labeled "I.H. Meridian." You may remember from Part 1 that Indie Hops and the Goschie Hops Farm, both on Meridian Road, were responsible

BAR & GRILLE

for resurrecting a hop variety that turned out to be something quite unexpected.

I asked Prof. Shellhammer if he agreed with Indie Hops CEO Jim Solberg's statement "beer is all about the hops." To clarify, he differentiated between "all about the hops" and "only about the hops." He asserts that it's all about the hops in some beers, all about the malt in others, and all about the yeast in another group. "I think hops are very much on the forefront of craft brewers' minds right now because that's the style of beer that's most popular today: very hoppy."

Tom showed us the sensory evaluation lab and explained, "We teach chemical analysis, physical analysis, and sensory evaluation. We do this, not just to teach our students how to analyze the differences between aromas, but also to build a palate." Tiny vials of hop components, distilled from distinctive varieties, were labeled and stored in small trays. I took big whiffs of cedar, citrus, floral, and herbal. Not all hop scents are pleasant, though. Professor Shellhammer asked innocently, "Does it smell a little bit like a cat has come in here and peed? We got two new compounds the other day in our library and they have, on the one hand, a grapefruit aroma, and on the other hand they have a cat pee smell. Some Sauvignon Blancs have that aroma, and this is that compound."

Daniel Sharp, one of a handful of graduate students in the program, came in with three newly distilled compounds. Tom gave one a sniff and sputtered, "Oh, that is so armpit!" Daniel was more positive, "When I first started working with these, they



**Above:** Professor Tom Shellhammer sniffs a vial of distilled hop components.

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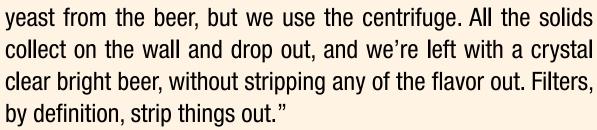
were very unpleasant but now I've come to appreciate them. I kind of like this one; it smells like grapefruit, whereas before it smelled like someone had lit a skunk on fire."

We described the "Hops Trail" theme to our story, and were invited into Tom's office to see his Hop Atlas. The Oregon Trail may have ended here, but the Pacific Northwest is the beginning of the Hops Trail. Next it took us to Ninkasi Brewing Company in nearby Eugene, where Founding Brewer Jamie Floyd gave us the grand tour. Hop Farmer Gayle Goschie had urged us to visit Ninkasi, if at all possible, because Jamie "is such an energetic, just completely-out-there young man. He's been just exceptional as far as reaching a segment of the market that is definitely on the young side. He's very passionate about Ninkasi."

Jamie led us past a vintage metal sign that read, "Beer will change the world! I don't know how, but it will," while explaining that beer brewing, rather than wheat cultivation and bread baking, was the reason hunter-gatherers gave up their nomadic lifestyle and settled into permanent communities. Beer gave rise to civilization? Sure. Why not?

Ninkasi Brewing Company, named for the ancient Sumerian goddess of fermentation, started in a defunct Springfield, Oregon, brewpub in 2006. During the whirlwind tour, Jamie pointed out that "we do a 90-minute boil here. Some other breweries do a 60-minute boil, but we do the full 90 to get the flavor and range we're looking for." He is equally emphatic about other parts of the process. "Most breweries use a filter to remove





"In seven years, this whole area will look totally different," Jamie continued with a sweeping motion of his arms. "These buildings are too small for what we want to do." What do they want to do? I can't be sure, but one of their best sellers is Total Domination IPA, so I'm guessing it's more market share.

Other brews have fanciful names, some obvious puns, and others very straightforward: Tricerahops Double IPA, Spring Reign Ale, Maiden The Shade, and Nuptiale Cream Ale. The latter, "inspired by human rituals of love, was first brewed to help celebrate a Ninkasi wedding."

On the other side of the country lies Allagash Brewing Co. in Portland, Maine, about as far from Portland, Oregon, as one can get without leaving the country. In talking with founder Rob Tod, it also became clear that breweries are not nearly so hops-centric on the East Coast. "The style of beer produced in a certain area hinges on the raw materials available in that area. Our beers are very yeast-driven. With Belgianstyle beers in general that's the case. The yeast strain is extremely important for Belgian-style beers."

Yeast is the benevolent fungus that converts carbohydrates into alcohol and carbon dioxide in both

beer and wine, and bread for that matter. Rob continued, "I used to work in another brewery, and I swore I would always keep things simple: one yeast. Now we use 20 or 25. Most originated in Belgium, a couple of them are wine yeasts, and a couple of them we culture on site here. We also make some spontaneously fermented beers using the natural yeast in the area. Belgium is kind of sandwiched between Germany and France. Belgian beer culture picks up the beer culture of Germany and the wine culture of France. "

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All the Allagash bottled beers are "bottle conditioned," which means that a little sugar and yeast are added just prior to bottling. This produces a second fermentation in the bottle, adding natural carbonation and character to the beer. Wine lovers will recognize this technique as "méthode champenoise," by which fine sparkling wines, including Champagne, are made.

In addition to a half-dozen beers that are available all year 'round, Allagash produces specialty brews, one-offs, and other creative beverages. Any one of the 40-or-so employees is welcome to experiment with a 10-gallon system. "It has to be



something that has the potential to be scaled up to production size, but we've brewed all kinds of stuff on that system." Rob and his crew are getting ready to release "...a kind of a Flanders Brown recipe, aged with literally thousands of pounds of cherries for well over a year and a half. It's called 'Old HLT,' because we had an old hot water tank, the hot liquor tank, which we converted to a conditioning tank." Another recent release has "juniper, lemongrass, and some local honey in it."

A few beers are made with naturally occurring yeast. This sounds like a total crap-shoot to me, because you really can't control what happens. A coolship is a large shallow pan used to cool wort (the liquid extracted from the mashing process) overnight using outside air temperature. During the cooling process, yeast from the ambient air inoculates the wort. In the morning, the cooled wort is transferred into barrels where the fermentation process begins. Then you wait and see what develops. The Coolship beers are only available at the brewery because of the length of time it takes to make them and the limited quantity available.

The distribution footprint for Allagash beers is decidedly unusual: "A strip down the East Coast from Maine to Georgia, 'Chicagoland,' and California. The reason we've stayed in Chicago and California is that there is huge demand in those markets. You know it's funny, I started the brewery 18 years ago, and for the first 12 years or so, we couldn't give the beer away. We've been adding 40% capacity every year for the last six or seven years, trying to keep up with demand." During a re-

cent trip to California, Frank and I shared a 750ml bottle of Allagash Curieux at Sacramento's Burgers and Brew. The Allagash website describes it as "the first foray into barrel aging. Curieux is made by aging our Tripel Ale in Jim Beam bourbon barrels for eight weeks in our cold cellars. The aged beer is then blended back with a portion of fresh Tripel. The resulting beer is soft with coconut and vanilla notes, with hints of bourbon." If you're reminded of wine-tasting notes, remember that Belgian-style beer draws heavily on French wine culture.

We decided to take the Coastal route back to Portland from Sacramento, and stopped in Santa Rosa for a late lunch. Monti's Rotisserie & Bar offered Pliny the Elder, made by the Russian River Brewing Co., a beer I recognized as having been very well-reviewed online. The helpful woman who served our lunch urged us to visit the brewery, "It's right downtown on Fourth Street," and before you could say "Pliny the Elder," we were looking for a parking place. Pliny, by the way, was a Roman naturalist, historian, traveler, and writer who is credited with creating the botanical name for hops. You can glean a great deal of trivial knowledge by reading the labels on beer bottles.

There were about 30 people queued up outside the front door, and I jumped to the conclusion



that the Russian River Brewing Co. wasn't open yet. As it turned out, I couldn't have been more mistaken. The number of people allowed in at any one time is strictly controlled, and the crowd on the sidewalk was waiting for entry. Inside was a cheerful capacity crowd enjoying a variety of brews with sandwiches and pizza. When we left an hour later, the line was still out the door and down the block.

Reflecting on our trip down the Hops Trail, I realized that coffee bean roasters, winemakers, craft brewers, small farmers, and the guys at Indie Hops all have one thing in common: passion for what they are doing and a desire to share it with others.

Benjamin Franklin didn't actually say "beer is proof that God loves us and wants us to be happy," but he should have.

The majority of Americans live within 10 miles of a brewery, so there's no reason not to get out there and try something new—there are over 1,700 craft breweries in this country. By region, here are a few suggestions:

# **EAST & SOUTHEAST**

If you can't visit Dogfish Head in person, take a virtual tour on the web while sipping their 90-Minute IPA or World Wide Stout purchased at a local bottle shop. Other Eastern stars include Victory Brew Company in Downingtown, PA, makers of Hop Devil Ale, Prima Pilsner, and Storm King Stout, and the biggest craft brewer of all, the Boston Beer Company, makers of Samuel Adams. One brewery with a delightful sense of hu-

mor is He'Brew, "The Chosen Beer," made in Saratoga Springs, NY, by Shmaltz Brewing Company. In addition to a half-dozen brews with a Coney Island Freakshow Theme (Albino Python, anyone?), they are celebrating their 15th anniversary with Genesis 15:15, Jewbelation 15, and Hop Manna. Also in New York are Genesee Brewing Company, makers of Genesee Cream Ale, and Southern Tier Brewing Company in Lakewood, which brews 2XIPA. Cooperstown, NY, is not only home to the Baseball Hall of Fame—there you can also find Brewery Ommegang, a decidedly Belgian-style brewery, makers of Hennepin, Three Philosophers, Rare Vos Amber Ale, and others. One reviewer swears that he "drinks what God would drink: Hennepin." Florida may have been a wasteland for beer-lovers in the past, but no more. With appropriate names such as Swamp Head Brewing, Saint Somewhere, and Cigar City Brewing, the beers from the Sunshine State express plenty of local character. CCB's line-up of award-winners includes Cubano-style Espresso, Jai Alai IPA, and Big Sound Scotch Ale.

# **MIDWEST**

Dan Carey, who stuck his nose in the Meridian hops mentioned earlier, brews craft beer in New Glarus, Wisconsin. He began as one of the youngest brewers in America, building his first brewery at the age of 23. He studied Food Science at UC Davis and was, at one time, a brewing supervisor for Anheuser-Busch. In 1993, his wife, Deborah, an entrepreneurial go-getter of the first order, raised the capital to build their first brewery as

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a gift for him, becoming the first woman to found a U.S. brewery. As Jim Solberg told the story, "They figured maybe, in their wildest dreams, it would become a 15,000-barrel brewery. They would have considered that successful. I think this year they'll surpass 100,000 barrels, all of it still in Wisconsin. That's why I love that story." On the New Glarus website, Dan and Deborah recommend enjoying their Wisconsin Belgian Ale or Raspberry Tart in a champagne flute; regular glassware is OK for Fat Squirrel, Laughing Fox, the best-selling Spotted Cow, Two Women, Back 40 Bock, and others. Another Wisconsin Brewery recommended by Indie Hops' Jim Solberg is Titletown Brewing Company in Green Bay. Lakefront Brewery, around since 1987, was the first in the country since the repeal of Prohibition to make fruit beer, the first certified organic beer, and a gluten-free beer made from sorghum. In nearby Michigan, Jolly Pumpkin Artisan Ales makes award-winners such as Oro de Calabaza, Bam Bière, and La Roja, plus a couple other year-round offerings and 10 seasonal brews. Kansas City is home to Boulevard Brewing Company, which offers up Single-Wide IPA and Double-Wide IPA, both "Twister-proof"; its Unfiltered Wheat Beer comes in an aluminum "bottle," and is likewise safe from the elements.

### **TEXAS TO THE ROCKIES**

Austin has gained a reputation as a great music scene, and now as a budding beer town as well. In a Beer Advocate poll, two of the top 10 Southwest beers came from (512) Brewing Company, named for the area code used in Austin, and they

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only make four year-round products. Live Oak Brewing Company, started by a couple of Austin homebrewers, is another reliable prizewinner, with award-winning HefeWeizen, Old Tree Hugger Barleywine, and Live Oak Primus Weizenbock. Saint Arnold, Texas' oldest craft brewery, is in the larger city of Houston, and earns kudos for its Divine Reserve #11 and Pumpkinator. Montana is Big Sky country, and Big Sky Brewing Company produces Montana Trout Slayer, Scape Goat Pale Ale, and Moose Drool, among others. Also in Missoula is Bayern, whose Oktoberfest Lager is still in stores. To protect the Missoula Aquifer, Bayern has teamed up with Montana Trout Unlimited, naming Dancing Trout as the official beer of this non-profit organization. Bayern recycles all of its packaging materials and feeds local cattle with its spent grain. Montana and Colorado are #3 and

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#4, respectively, in the ranks of breweries per capita. Perpetual award-winners come from Great Divide Brewing in Denver, Odell Brewing Company and New Belgium Brewing Company (both in Fort Collins), and Avery Brewing Company in Boulder. Boulder Beer Co., makers of Planet Porter and Mojo India Pale Ale, proclaims that it is Colorado's first microbrewery. Ponderay, Idaho, home to Laughing Dog Brewery, is practically in Canada,

but bottles of Alpha Dog Imperial IPA and DogZilla Black IPA managed to find their way to our local retailer.

#### **WEST COAST AND HAWAII**

Some people believe that Fritz Maytag started the whole microbrewing movement when he purchased Anchor Brewing Company in 1965. With almost 250 breweries in California alone, deciding what to drink is the hard part. In addition to the Russian River Brewing Company in Santa Rosa, we can also recommend AleSmith Brewing Company in San Diego, Anderson Valley Brewing Company in Boonville, the Bear Republic Brewing Company in Healdsburg, The Stone Brewing Company in Escondido, North Coast Brewing Company in Fort Bragg, Lagunitas in Petaluma, and The Bruery in Orange County. As mentioned when we began, Oregon is second only to Vermont in terms of breweries per capita, so there is likely to be a brewpub close by. Try 10 Barrel Brewing Company's S1NISTOR Ale, Gold Medal winner at the 2011 World Beer Championships. You won't go wrong with anything from BridgePort, Deschutes, Full Sail, or Hopworks Urban Brewery. Seattle is really a coffee town, but for beer try Hales' Ales Ltd., The Pike Brewing Company, or Elysian Brewing Company's beers. Midnight Sun Brewing Company in Anchorage gets plenty of raves for Bar Fly stout, Arctic Devil Barley Wine, Sloth Belgian-Style Imperial Stout, and Berserker Imperial Stout. If you live outside the west coast distribution area, it's also available by mail order.

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# **Craft Brewers Doing Well & Doing Good**

the brewers we talked with all have an interest in sustainability wind-generation. and good corporate citizenship.

who feeds it to his reindeer.

Everyone at Allagash Brewing Company is engaged in being Another thing craft brewers seem to have in common, be- as "green" as possible. One of the key performance indicators sides a passion for their product, is a concern for the environment tracked on a monthly basis is the amount of water used in makand a desire to be responsible members of the community. From ing one gallon of beer. Says Founder Rob Tod, "Over the last ten Deschutes Brewing Company's use of Salmon Safe hops to New years, we've been able to reduce the amount of water we use Belgium Brewing Company's membership in "1% For The Planet," by almost 50%." The brewery also gets all of its electricity from

Another form of support to Portland, Maine, is the Allagash As Portlanders, Frank and I are used to recycling and com- Tribute Series. One dollar from the sale of each bottle of four difposting, but I had not heard of "upcycling" until Jamie Floyd at ferent beers goes to support a good cause. Sales of the Victo-Ninkasi told us the "brew beef" story. Once the malted barley ria Ale benefit the National Historic Landmark, Victoria Mansion. has been used in the beer brewing process, it is "upcycled" to The Victor Ale is brewed to benefit the St. Lawrence Arts Center, Oregon Natural Meats, where it is fed to their cattle. According and Hugh Malone Ale supports the Maine Organic Farmers and to the meat producer, this helps ONM keep its products sustain- Gardeners Association. Fluxus, brewed each year with a differable and locavore-friendly. As we followed the hops trail, we dis- ent recipe to commemorate the anniversary of Allagash's first covered many more craft brewers who sent their spent grain to beer sold in 1995, helps to fund a scholarship set up for pediatric nearby farms, with one in Maine upcycling its grain to a farmer nurses at The Barbara Bush Children's Hospital at Maine Medical Center.

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