

FOOD TRENDS

## SOUS VIDE VS. TRADITIONAL FRENCH COOKING

By *Special to MIX*



Lee Emmert

Why are chefs — and some geeky home cooks — so enthralled with cooking in a plastic bag? What's wrong with a good old-fashioned pot? Writer and self-described "sous vide nerd" Hank Sawtelle isn't afraid to have a taste-off against French-trained cook Louisa Neumann.

By HANK SAWTELLE

Photography by LEE EMMERT

Some of the most delicious food in the world is being cooked inside a sealed plastic bag. At least that's my opinion, but I'm part of a small but growing breed of enthusiast: the sous vide nerd.

With sous vide (pronounced sue VeeD; French for "under vacuum"), chefs can cook sealed food in electronically controlled water baths at relatively low temperatures, often for a long time ... as in cooking something for days. The outcome: texture and flavor that can't be achieved with traditional methods. In the right hands, the result is enchanting, such as a tough chuck roast that takes on the buttery texture of medium-rare tenderloin. It's almost like magic.

But not everyone is a fan. Too trendy, too clinical, say the traditionalists. And too many plastic bags, temperature probes and blinking lights. What's wrong with making duck confit the old-fashioned way?

That's what MIX editor Martha Holmberg asked, anyway, when I confessed to my own obsession with sous vide. Yeah, tender short ribs after three days in a circulator at 140 degrees sound great, but how about a Dutch oven and a rainy afternoon, she asked?

It seemed a smack-down was in order.

But before we ask you readers to take sides, I think you need to learn a bit more about sous vide ... and about me. If there's a way to do something — anything — with a gadget, I'm on board. Why limit myself to a toothbrush when I can use an electronic sonic tooth cleaning system? You get the idea.

So when an early midlife crisis led me to culinary school and an

apprenticeship in chef Wylie Dufresne's high-tech kitchen at wd-50 in New York, I got hooked. Between peeling crates of onions and mincing shallots in the muggy basement prep kitchen, I filled my notebook with sous vide cooking times and temperatures for various foods.

Developed in France in the 1970s as a way to reduce moisture loss and improve quality in large-scale food production (such as remote catering), the sous vide method caught on with European restaurant chefs. In the past decade, a growing number of American chefs have gotten on board as well, most notably Thomas Keller of The French Laundry and Per Se, who wrote the sous vide cookbook "Under Pressure."

Like kids with new toys, many chefs played with them too much at first, cooking everything sous vide that would fit into a water bath and dropping gleeful references into their menus. It seems every episode of "Top Chef" includes a sous vide attempt, with varying levels of success.

But sous vide cooking is finding a comfort zone in American restaurant kitchens, including in Portland. Recently at Ten01, one of two immersion circulators could be seen in the open kitchen during dinner service, with delicate fish dishes being cooked sous vide to order. Another circulator in the back worked overtime on tougher proteins. Former Ten01 chef Benjamin Parks explains: "I like the way ingredients penetrate the meat over time with sous vide. For example, a little bit of fresh horseradish juice in the bag gives every slice of roast beef a clean, tart flavor."

David Siegel, chef/owner at Belly Timber, has tried, and ultimately rejected, sous vide cooking in a number of traditional dishes. He always ended up preferring the traditional version. But he does use the sous vide method to transform tough pork shoulder into tender but flavorful "chops," a feat that can't be accomplished by braising. "Rather than pitting science against tradition, I prefer to marry the two," he says.

So as the infatuation dies down, chefs are applying the technique when it makes sense and not advertising it unless curious diners ask. If the food tastes great, who cares how it was cooked?

Well, the health department sort of cares. Sous vide cooking requires some unique food-safety precautions, and the novelty of it has put health departments in unfamiliar territory. Vacuum-sealing food creates a potentially perfect environment for botulism-toxin-generating bacteria, which thrive in the absence of oxygen at certain temperatures. This might be great news for botox-injection clinics, but not for restaurants. This means cooking temperatures must be sufficiently high. but, equally important, cooked foods that are not served immediately must be rapidly chilled.

After wd-50, I returned to Portland determined to figure out sous vide cooking at home, but I faced two profound obstacles: 1) the high price of the equipment, and 2) convincing my wife to let me bring it into the kitchen.

At \$3,000 for a professional vacuum sealer and \$1,000 for a precision water-temperature controller (called an "immersion circulator"), restaurant-grade equipment was out of the question. So I dusted off an old Foodsaver home vacuum sealer and searched the Web for advice on building my own temperature controller. (And if you still think sous vide is just for the fringe element, Google it: At last count, the term "sous vide" got 2,640,000 results.) It turned out there was a company making affordable controllers for home sous vide geeks. I bought one for \$130 and combined it with an electric hot plate and a small stockpot as a cooking vessel. The controller has a probe to measure the temperature of the cooking water, and a relay to turn the hot plate on or off as necessary to maintain the desired temperature.

The pricing issue solved, I turned to appeasing my wife with really good food, such as perfectly fried chicken (precooked sous vide to maintain moisture and avoid any pink underdone surprises near the bone) and "two-speed duck" — legs cooked well-done and breasts medium-rare, both briefly crisped in a cast-iron skillet before serving.

This worked fine for a while, but I eventually outgrew my single sous vide rig. How was I supposed to cook fennel bulbs in bacon fat at 185 degrees for an hour when I had yak short ribs going at 140 degrees for two days? The solution: a crude industrial heating and cooling controller (about \$80) coupled to an old rice cooker (free on Freecycle.org), with the whole mess hidden in the garage.

I knew I'd reached full-blown obsession when I was sautéing some vegetables in a pan one day and my 4-year-old daughter asked me, "Daddy, why are you cooking that not-sous-vidé?"

### SO NOW, TO THE SMACK-DOWN

In the sous vide corner — me, obviously. In the traditional, nostalgia-laden, Dutch-oven-hugging corner — my friend, Portland caterer and cooking instructor Louisa Neumann. Louisa's a great cook, and she literally didn't know how to spell "sous vide" before my challenge, so she's a worthy opponent.

**The ground rules:** We each cook beef short ribs and Yukon Gold potatoes; we limit ourselves to a shortlist of other ingredients and seasonings. I wanted to fairly evaluate the differences in the techniques, not find out who could add more truffles or foie gras to the plate.

**The tasters:** Hank Sawtelle, the writer, and the sous vide side of this smack-down Louisa Neumann, a French-trained cooking teacher and the Le Creuset-hugging side of this smack-down Martha Holmberg, MIX editor, who also learned to cook in France and occasionally embraces her enameled Dutch oven Ken Rubin, academic director of The Art Institute of Portland's culinary school (and the person who graciously loaned us the space for the smack-down), chef and culinary anthropologist; theoretically, he's unbiased Lee Emmert, the photographer and a curious eater Tom Gonzales, photo assistant and hungry guy with a good palate

**The results:** It was kinda weird, but we pretty much liked both dishes equally. Hmm, was this smack-down rigged? No, honestly, it was just that the dishes were distinctively different from each other, but both delightfully edible. To say which one we like best would be like asking which is better, chocolate ice cream or chocolate cake?

**Hank:** If it's rainy and cold outside, I'll want the braise. But the sous vide short ribs are tender and beefy — like filet mignon, only in its wildest dreams.

**Louisa:** Hank's short ribs were really impressive. But sous vide is cooking at arm's length — the cook doesn't seem necessary since there's no browning, deglazing, sauce-building. It's also much less of a sensory experience; no sizzling, bubbling, wafting aromas. "Cooking" without those things should go by another name! Hundreds of years of French culinary tradition is good enough for me.

**Martha:** The color of the sous vide ribs is exquisite, and the texture is like steak — how is that possible with gnarly ol' short ribs? I'm finding that I'm devouring as much of this aligot and braise as I can, however. But hey, try a combo bite: put some braising sauce on a bite of sous vide beef — that's killer.

**Lee:** In her potatoes, the gruyère is great. The texture is like glue. Which sounds bad, but I'm a glue-eater.

**Tom:** The presentation of the sous vide potatoes was mysterious and not at all natural, but that made eating them better. The braised beef melts as you eat it. It tastes like Mom's food. The sous vide beef tastes and feels like it came fresh off the stove, and the chili kick is great.

**Ken:** We don't have a language to describe sous vide food, because we don't have an emotional attachment to it yet. It's delicious, but you don't wake up in the middle of the night and crave it. But we'll develop that.

**Hank:** My daughter craves it.

## SO IS IT REALLY ABOUT THE GADGETS, OR IS SOUS VIDE A BETTER WAY TO COOK?

At wd-50 I learned that the advantage of sous vide is temperature control. With a technique such as roasting, when you want to cook meat to 130 degrees, you subject it to much-higher temperatures (say a 350-degree oven), and try to guess when to remove it from the heat (allowing for carryover cooking, of course). If you're lucky and/or good, most of the roast will be near the target temperature at serving time. With sous vide, the entire roast is brought to precisely 130 degrees, with no guessing. Before serving, the meat can be pan-seared for an attractive appearance and exterior texture.

Temperature and time can be manipulated to play more interesting tricks. For example, using sous vide, you can prepare short ribs (which are usually a tough cut that requires braising) so they are medium-rare and as tender as filet mignon by cooking them for a long time (up to several days) at a lower temperature until the connective tissue yields, but the meat remains pink and firm. This is sous vide cooking at its best — transforming food in a way that isn't possible with other techniques. But it's not a magic wand. As Thomas Keller explains in "Under Pressure": "The degree of precision sous vide allows is extraordinary, but you still have to know how to cook."

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## SOUS VIDE RECIPES



### SOUS VIDE SLOW-COOKED CHIPOTLE SHORT RIBS

*Serves 4*

#### For the ribs:

- 3 pounds beef short ribs, bones and thick silverskin removed
- 1 tablespoon kosher salt
- 1 tablespoon ground chipotle chile
- 1 teaspoon garlic powder
- 1 teaspoon onion powder
- 1/2 teaspoon freshly ground black pepper
- 1/4 cup rendered bacon fat, warm

#### For the sauce:

- 2 tablespoons vegetable oil
- 1/4 onion, roughly diced
- 2 cloves garlic, roughly chopped
- 1/2 canned chipotle chile in adobo sauce, seeded and roughly chopped
- 1/2 teaspoon whole cumin seed

1 cup beef demi-glace (or 2 cups rich beef stock reduced by half)  
1/4 cup tomato paste  
1 bay leaf

Set up a water bath at 131 degrees.

Sprinkle ribs with salt, chipotle, garlic powder, onion powder and pepper. Add to 1 to 2 cooking bags in an even layer. Add bacon fat and vacuum seal bags. Cook at 131 degrees for at least 12 and up to 24 hours.

For the sauce, heat the vegetable oil over medium-low heat in a small saucepan; add the onion and garlic and cook until soft and translucent, 3 to 4 minutes. Add the chipotle, cumin, demi-glace, tomato paste and bay leaf. Simmer, covered, for 10 minutes on low heat. Strain through a fine mesh strainer.

To serve, remove ribs from bags. Sear outer surfaces briefly in a cast-iron or French steel pan on high heat. Slice each rib into 3 to 4 slices and serve warm with sauce.

*From Hank Sawtelle*

### **SOUS VIDE GARLIC-CHIVE POTATOES**

*Serves 4*

#### **For the garlic/chive butter:**

2 cloves garlic, roughly chopped  
1/2 pound unsalted butter, clarified  
1 bunch chives (about 1 ounce), a few reserved for garnish

#### **For the potatoes:**

4 medium-to-large Yukon Gold potatoes, peeled and cut into 3/4 - to 1-inch dice  
2 tablespoons kosher salt

#### **For the cheese crisps:**

4 ounces gruyère and or cantal cheese, shredded

Heat a water bath to 180 degrees. Heat oven to 300 degrees.  
Heat the garlic in the clarified butter over medium heat in a saucepan until it begins to bubble. Remove from heat and let steep.

Purée the chives thoroughly in a food processor. Add to the clarified butter/garlic mixture, mix well and steep for 10 minutes. Strain through a fine-mesh sieve.

Sprinkle potatoes with salt and vacuum seal in 1 to 2 bags with most of the garlic/chive butter (reserve about 2 tablespoons of the butter for serving). Cook at 180 degrees for 2 hours.

While potatoes cook, spread cheese on a silicone baking mat and bake on a baking sheet at 300 degrees until crisp, about 20 to 30 minutes. Remove cheese from baking mat and place on a rack to cool. Blot any grease with paper towels. Break cheese crisps into small (1-inch) pieces.

If you like, finely slice remaining chives for garnish. Remove potatoes from bag and place briefly on a paper towel to drain. Make a small pile of potato cubes on each plate, and top with reserved garlic-chive butter, cheese crisps, sliced chives and the short ribs. Serve warm.

— *From Hank Sawtelle*

### **NOT SOUS VIDE RECIPES**



### **BRAISED CHIPOTLE BEEF SHORT RIBS**

*Serves 4*

- 3 pounds beef short ribs, trimmed of fat
- 1 teaspoon kosher salt
- 1/2 teaspoon ground black pepper
- 2 tablespoons vegetable oil or rendered bacon fat
- 1 medium onion, diced
- 2 tablespoons chopped garlic
- 1/2 teaspoon ground cumin
- 1/2 to 1 cup beef stock, plus more to thin the sauce
- 1 (14-ounce) can diced tomatoes
- 1/2 canned chipotle chile in adobo sauce, seeded and finely chopped
- 1 bay leaf

Heat the oven to 350 degrees. Pat short ribs dry with a paper towel and sprinkle with salt and pepper.

Heat a large Dutch oven or heavy-bottomed, oven-proof pan over medium-high heat and add the vegetable oil. When oil is shimmering, add the short ribs, in batches if necessary, and brown on all sides, about 8 minutes total. Transfer the ribs to a plate and set aside.

Reduce heat to medium. Pour off all but 2 tablespoons of the fat in the pan. Add the onions and cook gently until softened but not brown, about 5 minutes. Add the garlic and the cumin and cook until fragrant, less than 1 minute. Deglaze the pan with the beef stock, scraping up any browned bits from the bottom. Add the tomatoes, chipotle and bay leaf. Bring liquid to a boil. Return short ribs to the pan and cover tightly. Transfer from the stovetop to the oven.

Cook covered, stirring every 30 minutes, until the meat is tender and pulling away from the bone. If the cooking liquid is evaporating too rapidly, add some beef stock to thin it. Total cooking time will be 1 to 2 hours. When ribs are cooked, transfer them to a serving dish. If necessary, return the pan to the stove and reduce the liquid to a sauce consistency over high heat. Serve with the sauce over the aligot, or over polenta, mashed potatoes or refried beans.

— *From Phyllis Petrilli*

### **ALIGOT (Potato and Cheese Purée)**

*Serves 6*

- 2 pounds Yukon Gold potatoes (4 to 6 medium), peeled, cut into 1/2-inch-thick slices, rinsed well and drained
- Kosher salt

6 tablespoons unsalted butter  
2 medium garlic cloves, minced (about 2 teaspoons)  
1 to 1½ cups heavy cream or crème fraîche  
8 ounces gruyère, cantal or well-aged sharp cheddar cheese, grated (about 2 cups)  
2 tablespoons milk, or more to loosen potatoes if necessary  
Ground white pepper

Place potatoes in large saucepan; add water to cover by 1 inch and add 1 tablespoon salt, top with a lid and bring to a boil. Reduce heat to medium-low and simmer until potatoes are very tender when pierced with a knife, 15 to 20 minutes. Drain potatoes.

Transfer potatoes to food processor; dry the saucepan. To the potatoes in the food processor, add butter, garlic and 1 teaspoon salt. Pulse until butter is melted and incorporated into potatoes, about 10 one-second pulses. Add 1 cup heavy cream and continue to process until potatoes are smooth, about 20 seconds, scraping down sides halfway through. (Note: If you want to prepare aligot ahead, stop at this point, spread the purée back in the saucepan, pour a thin layer of cream on top, and leave the pan in a water bath to keep warm for up to 1 hour.)

To finish, return potato mixture to saucepan and set over medium heat. With a wooden spoon, beat the cheese into the purée a handful at a time. Continue beating constantly until the mixture pulls from the sides of the pan and forms long elastic ribbons when it falls from the spoon, 7 to 10 minutes. If it seems dry, add milk 1 tablespoon at time. Add pepper to taste. Serve at once, using scissors to cut the strings of cheese as you serve. (If left to stand, aligot becomes very heavy, so serve right away.)

— Adapted from Anne Willan's *"The Country Cooking of France"*

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