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Slow Cooking
And Why Five-Star Chefs Love It

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Network **18**

by Shaista Bharwani

SLOWLY DOES IT

Chefs are taking the *sous-vide* route to serve up age-old recipes of slow-cooked food. So can you



Photographs: Kaushik Chakravorty for Forbes India

Traditional Gourmet Atta Chicken needs to be cooked overnight in a tandoor

Making my way through a salad of green asparagus and palm hearts at Mumbai's newest 'it' restaurant The Table, I encounter an egg yolk unlike any other I've met. Not runny, not set, it has a creamy, spread-like texture that is more reminiscent of a delicate custard than something you chomp through mindlessly at the breakfast table.

Chef Alex Sanchez nods approvingly as he notices I am puzzled by the yolk. "This is the magic of *sous-vide* cooking," he says. "This yolk, for instance, came from an egg that was cooked for an hour at the precise temperature of 67.5°C in a *sous-vide* tub. The constant low-grade heat and the long cooking time made all the difference. You can achieve things [with *sous-vide*] that you can't in any other cooking method."

Fresh Catch Cooking Chilean Sea Bass in the *sous-vide* method retains its texture and freshness



As if to prove his point, the chef now serves a slow-cooked chicken dish with Swiss chard and Thai fragrances. I cut into the chicken thigh, still a delicious shade of light pink deep inside. Not only do I find it perfectly cooked, I can also taste layers of flavours. Much to my astonishment, Sanchez tells me that it was cooked only with crushed garlic, thyme and salt in a *sous-vide* bath, and seared for a crispy finish.

"Basically, *sous-vide* cooking allows the food — be it meats or vegetables — to retain its natural moisture inside a vacuum-sealed bag that is placed in a thermocirculator-controlled bath," says Sanchez. "It is a highly technical method of cooking that is immensely rewarding," adds Viraf Patel, co-executive chef at The Table.

Though it has only been a matter of months since *sous-vide* cooking began making significant headway in India,

internationally, the method has been popular with chefs such as Heston Blumenthal, Thomas Keller and Tetsuya Wakuda propagating and refining it in their restaurants. Nor is its application limited to fine-dining: Chipotle, a popular Mexican fast food chain in the US, the UK and Canada, swears by *sous-vide* as a method of cooking some of its meats.

In India, though, the cost of the *sous-vide* bath and circulator — around Rs. 3 lakh — limits the availability of *sous-vide* cooking to topline restaurants. In Bangalore, Executive Chef Ramasamy Selvaraju at Graze, in Vivanta by Taj, started working with *sous-vide* cooking four years ago. Chef Abhijit Saha of Caperberry, a standalone restaurant in Bangalore, researched the cooking method for six months before offering it to his clients. "The results we get with meats are incredible," says Saha.

Ironically, the taste of the food was the last thing on anyone's mind when *sous-vide* was born: It was originally conceptualised as a way to sterilise foodstuff for the canning industry in the 18th century. As recently as 40 years ago, chefs in France woke up to the possibilities of cooking *sous-vide* (literally, under pressure).

Despite its widespread adoption in the food business, the basic process of *sous-vide* hasn't changed much in all these years. At its very basic, it requires the meat or vegetable to be marinated (or simply herbs and spices are added to it) in a thick plastic bag, which is then vacuum-packed — a process called cryovacing — and placed in a water bath. But just any pan of water won't do: The water needs to be maintained at a constant temperature, with fluctuations of less than 0.02°C, and in constant motion. The upshot of all this persnickiness is food that loses only five percent of its moisture, nutrients and other values, way below the 30 percent stolen by conventional cooking methods. On the plate, it translates into food that is as pure as cooked food can be. "The first thing that happens when you are grilling or boiling or stewing meat is that the juices vaporise, causing the meat to dry up... As a result, you lose the essential tastes of the meat. *Sous-vide* cooking, on the other hand, provides a product that is very flavourful and juicy," says Saha.

And that applies to tandoori chicken as much as chicken with Swiss chard and Thai fragrances: *Sous-vide* lends itself to all kinds of cuisine. "You won't get the charred effect in a *sous-vide* tandoori chicken, but it will be much

softer," says Mandaar Sukhtankar, executive chef of The Park Hotels, who wowed a packed house with his *sous-vide* creations at the Apeejay Group's centenary celebrations in Hyderabad in April. Adds Chiranjib Chatterjee of Aafra, Kolkata, who has been using *sous-vide* techniques for a year: "A rogan josh cooked this way, for instance, has a very smooth, silky texture, unachievable any other way."

Not just meats, vegetarian dishes, too, lend themselves to *sous-vide* methods. Selvaraju, for instance, makes a white onion soup by cooking the onion and garlic in the air-sealed bag in a simmering bath to magnify flavours, and finishing the dish on the stove. "Anything can be cooked in the *sous-vide* method, including basic vegetables like beans, carrots and potatoes, if you want to intensify their natural flavour and juices," he says. Chatterjee has cooked fruits, too, in the *sous-vide* bath.

Coming full circle, chefs invoke *sous-vide*'s original intent in the commercial kitchen as well: Dishes can be cooked following these principles, blast-chilled to temperatures between 2-4°C (at which most bacteria remain dormant) and then stored for up to two days. For longer periods of storage — up to three months — the food requires to be frozen.

If not chilled or frozen, food cooked at 30°C and above should be served within two hours for it to be safe for consumption. Anything cooked at 60°C needs to be served within four hours. While *sous-vide* cooking can extend up to 72 hours, most restaurants cook meats between temperatures of 55-85°C for anything between one-and-a-half hours and 48 hours.

"Conditions need to be monitored very carefully when cooking meats in the *sous-vide* method," says Ajay Pant, executive chef, Sheraton Udaipur Palace Resort. "If the temperature drops below 55°C, it encourages growth of

TIPS ON USING A SLOW COOKER

- Prepare or marinate the meat and vegetables the night before so that you can throw everything into the slow cooker and then leave for your day's work.
- Curries, soups, sauces, rice and lentils are the most suitable dishes to make in a slow cooker.
- You should use the cheaper cuts of meat because after many hours in the cooker, they get the best flavour and texture.
- Cook your meat for eight to nine hours on the low setting for it to be tender and moist. If you want the juices to condense, increase the temperature during the last hour.
- Try not to take the lid off unless it is necessary. Every time it is removed, heat is lost and the cooker will take some time to reach the required cooking temperature again.

FOR SOUS-VIDE DISHES...

- When red meats such as lamb, pork or beef are being cooked, tough cuts thicker than 2 inches should remain in the tub for between eight to 12 hours.
- Lamb shanks that are very muscular are cooked at about 85°C for 48 hours, which slowly breaks down the protein, making the meat tender.
- An oily fish like salmon can sustain a temperature of 62.8°C and can be cooked for an hour or so. However, leaner fish tend to dry up faster and should be cooked at below 60°C.



SLOW COOKING IN YOUR KITCHEN

Slow Cooking may be difficult to practice in our hectic daily lives, but it has not faded from the culinary world altogether and probably will never due to the incredible taste experience it offers. Moreover, in Indian villages and some cities such as Hyderabad and Lucknow, food is still slow cooked on coal or wood fires, in earthenware. In

our metropolitan cities, it has become a rare experience that we can enjoy in restaurants.

However, with technological advances in culinary equipment, slow cooking is getting more convenient to practice on a regular basis.

Companies making *sous-vide* equipment have also developed smaller machines for home kitchens.

Although the availability of these devices makes slow cooking a possibility in the home kitchen, it still comes at a significant price.

Distributors and manufacturers like Siskin (siskin.in) and Rite Equipment (rite-equipment.com) sell water bath circulators for Rs. 40,000 to Rs. 3 lakh in India. Vacuum packing machines (professional ones) come for Rs. 45,000

from Rite Equipment. Sealers India Agencies (sealersindia.com) sells vacuum packers for Rs. 8,500, while Avi International Packaging (avipackingmachine.com) sells domestic, toaster-sized ones for Rs. 4,500.

You could also place orders from companies such as Julabo (julabo.de), where a domestic *sous-vide* machine would cost you

Rs. 70,000, including shipping charges.

For an improvised version of *sous-vide*, cover the food in layers of saran wrap, or place it in zip lock bags and manually push as much air out of the bag as you can, or suck the air out with a straw. These methods work for food cooked for a short time. You can then cook the item in a slow cooker in which you

can set the temperature. The results will not be perfect, but you can get close to the basic *sous-vide* food.

The slow cooker, on the other hand, is very different from *sous-vide* set-ups. It comprises a removable ceramic bowl within a double-walled body, with aluminium on the inner side and steel on the outer. There is a heating element, powered by electricity, at

the base. Programmable slow cookers are also available, where you can set the time and temperature.

Slow cookers, widely used and known as crock pots in the US, are difficult to find in India, but the trend is slowly catching on. HCL Industrial (hclmfg.com), based in China, supply their slow cookers to distributors in India. Kenwood too has its range of

slow cookers. Prices range from Rs. 3,200 to Rs. 4,400.

You can cook traditional food like dum biryani, rogan josh or kaali dal (dal makhani) in slow cookers. "If you are cooking meat and want to have a grilled flavour, you can grill it and then place it in the slow cooker," says Ajay Pant, executive chef, Sheraton Udaipur Palace Resort.

the Clostridium botulinum bacteria."

Notwithstanding the dangers and demands of *sous-vide* cooking, the method seems here to stay, if the opinion of leading chefs is anything to go by, if only as a niche process. And why not, given the superior explosions of taste engendered by the slow, temperate cooking.

Sous-vide, despite its unarguably foreign origins, fits in particularly well with ancient indigenous cooking meth-

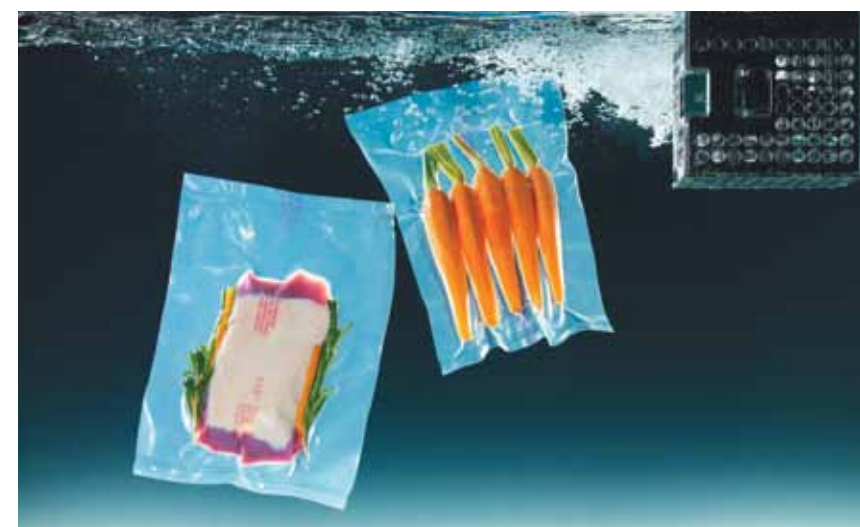
ods. Nomadic tribes, for instance, were known to bury their hunt deep in the desert sand. "Over 18 hours, in temperatures of 67-68°C, the meat would get cooked in time for their return," says Chef Ishtiyaque Qureshi, owner of Kakori House and a number of kebab restaurants across the country and son of renowned chef Imtiaz Qureshi.

Centuries later, battle-weary soldiers satiated their tummies through similar methods: Meat marinated over-

night was wrapped in leaves, covered with wet clay, placed on embers, and covered with hot ash, ensuring it would cook — but not burn — over 12 hours. In Rajasthan, royal retainers devised a method whereby meat buried in a pit in the ground received heat from both ends. Awadhi Dum Pukht cooking is a refinement of similar practices.

Ghulam Mohammed Qureshi, head chef of Delhi ITC Maurya's Dum Pukht restaurant that takes its name

Meaty Measure For Mussaman Curry, the lamb is cooked in a *sous-vide* bath for 12 hours



Packed Perfection Meat and carrots being cooked in a *sous-vide* bath

from the tradition, narrates the story behind this method: "In 1780, Nawab Asaf-ud-daulah founded Awadh. The whole region was reeling under poverty and famine. So he commissioned the building of the Bada Imambara, which employed 5,000 labourers and artisans. Their food — biryani or khichda, with meat, vegetable and dal or rice — would be placed in copper or earthenware cauldrons and the lids sealed with atta [dough]. A slow fire would be lit below and embers would

be placed on the lid as well. One day, the nawab passed by the construction site and was entranced by the aromas. He returned to the palace and instructed his *raqabdar* [head cook] to adopt the same methods for palace food."

The principles of Dum Pukht — 'dum' implies a dish cooked in its own juices in a sealed vessel, while 'pukht' means pure or refined, in Persian — gradually spread around the country and developed its own legs. The Nizam's Hyderabad, for instance,

perfected the haleem, mutton cooked overnight on a slow flame in a sealed handi, and mashed with soaked wheat.

Chef Hemant Oberoi of the Taj Palace, Mumbai, upholds the tried-and-tested theories of Dum Pukht cuisine in his creation, haleem kebabs, at Masala Kraft. The flattened mutton-and-wheat patties melt in the mouth without compromising on their complexity. He has also resurrected the Atta Chicken, a marinated chicken covered in dough and slow-cooked overnight in the tandoor, which, Oberoi claims, used to be a work-day protein-and-carb staple till the 1940s.

"With the use of slow-cooking methods today, we are trying to bring together the traditional with the contemporary," says Oberoi.

How does slow-cooking work, though? Sukhtankar, of The Park Hotels explains: "Protein coagulates slowly on a low fire, which helps trap the moisture, keeping the meat soft. High heat causes faster coagulation, pushing out the water content and drying up the food. And the quality of food is directly impacted by the quantity of moisture retained."

My taste buds agree. ■