

Seasoning WITH Scent

Chefs are tapping this powerful sense like never before, using aromatic ingredients to create a new flavor palette



At Alinea in Chicago, the earthy aroma of black truffles fills the air when Grant Achatz's hot-potato, cold-potato creation is served.

LARA KASTNER

BY PRISCILLA MARTEL

In sun-soaked Grasse, France's fragrance capital, chef Jacques Chibois interprets the scent Chanel No. 5 in a theme menu composed of seasonal produce and the aromatic ingredients that form the base of the fragrance. At Coi Restaurant in San Francisco, chef Daniel Patterson asks diners to open their senses of taste and smell by applying his custom natural fragrance made from essential oils of ginger, black pepper, pink grapefruit and tarragon before eating a grapefruit salad made with the same ingredients. In Chicago, Alinea's chef Grant Achatz presents black cod with vanilla and artichoke on a pillow of orange air, which perfumes the diner when served.

Innovative chefs are reexamining the power of scent and using it to enhance the dining experience. While these examples are on the cutting edge, the use of fragrant materials is expanding the flavor palette of many foodservice operations. Unexplored aroma and aromatic ingredients are attracting chefs' attention like never before.

THE POWER OF SCENT

Research at the Monell Chemical Senses Center in Philadelphia confirms what those of us who flash back to childhood memories at certain smells already know: Smell is the most emotional of our five senses. Odorants, which are volatile chemical compounds, travel directly to the limbic center of the brain, the source of all emotional memory. Aroma receptors in the brain interpret these compounds and automatically register the smell, along with visual and emotional clues tied to the experience of smelling and eating. For many of us, the scent of chocolate-chip cookies baking becomes fused with happy childhood moments spent with Mom.

Imagine how the dining experience is enriched when Achatz sends out his pheasant, apple and shallot on an oak twig, the leaves alight.

"Smoldering leaves create a recollection smell for anyone who grew up in the Midwest in autumn," he says.

Or, visualize the mouth-watering excitement when the waiter at Mistral in Boston lifts the cloche on fettuccine perfumed with truffle butter, served with truffle sauce, buried under slivers of sliced fresh white or black truffles. "The dish causes a sensation," says Chef de Cuisine Mark Goldberg. "Everyone can smell it as it is served."

QUICK-TAKE

THIS STORY TAKES A LOOK AT:

- ▶ Chefs who are using scent in traditional and innovative ways to enhance the dining experience
- ▶ How scents can complement food flavors safely and authentically
- ▶ Selling the product by employing scent, from piping in atmospheric aromas to integrating scent with food packaging



LARA KASTNER

ROOTS OF SCENTED COOKING

The shift from earthy truffles to flowery tuberose is not as considerable as one might think. Fragrant Southeast Asian ingredients like galangal, lime leaves, lemon grass and Thai basil are gaining wide acceptance. The intricately seasoned cuisines of India, Persia, Morocco and Indonesia, home of the Spice Islands, have reintroduced cardamom, coriander and tellicherry pepper to our culinary vocabulary. Essential oils made from these ingredients also are perfume staples. Chefs even share the perfumer's vocabulary — or that of the enologist — speaking of top notes, middle notes and base notes to describe a dish.

Aromatherapy, which draws upon scent's ability to instill a sense of well-being, is mainstream. Beverage companies already incorporate fragrant essences



Beverages make a good medium for floral essences, as in jasmine tea or rosehip lemonade.

MONIN GOURMET FLAVORINGS

AROMA HOW-TO

The notion of incorporating fragrance into cooking doesn't mean spritzing guests with patchouli. It's about selecting and using ingredients prized for their aromatic qualities, many of which are quite common. Some hark back to the medieval herbalist, while others, like perilla and leather, are cutting-edge.

Naturally aromatic ingredients used in the kitchen as well as the fragrance industry:

HERBS — chamomile, hyssop, lavender, lemon balm, lemon verbena, mint varieties, rosemary, shiso leaf (perilla), tansy, thyme, yarrow

SPICES — anise seed, cinnamon, cardamom, cloves, cumin seeds, fennel seeds, juniper, varieties of black peppercorns, star anise

CITRUS OILS — lemon, lime, orange and bergamot

EDIBLE FLOWERS — roses, orange blossom, jasmine

COFFEE, fresh **GINGER**, **VANILLA**, fragrant **BERRIES** like elderberries

Naturally aromatic ingredients not often used in the kitchen:

CEDAR, **SANDALWOOD**, **PINE**, **MASTIC GUM**

ESSENTIAL OILS, or oils extracted from plant material through distillation, can come from culinary ingredients such as those already listed — citrus, nuts, herbs, etc. Essential oils also are derived from edible ingredients not normally used in cooking but often used for fragrances. Fig, geranium and *Litsea cubeba*, distilled from a type of Chinese laurel, are a few examples.

derived from mint, lavender and Mandarin orange into fruit drinks, bottled teas and water.

The use of aroma in American cuisine is not novel. Back in the 1980s, the friandises at Brooklyn's River Café were served on a miniature cast-iron stove; burning cinnamon-stick "logs" added a sweet smoke to the end of the meal. In 1994, chef Jean-Georges Vongerichten positioned a display table in the lobby of Vong restaurant in New York City. It brimmed with the exotic fragrant spices used in his Thai-inspired French menu and intentionally perfumed the entrance, "shadowing things to come," according to Jessica Kingsland of Jean-Georges Management Co.

SCENT SENSE

Sensory science confirms that flavor is mostly smell. Chewing releases volatile compounds in food, sending the fragrant elements of a dish through internal nostrils located in the back of the throat. Introducing aromatic flavors directly into food is one of the easiest and more approachable ways to use fragrance in cooking.

Because many aromatic ingredients are not palatable on their own, infusing their flavor into a dish makes sense. Chefs already infuse creams, syrups and oils with fragrant materials. Instead of a vanilla custard sauce, lavender or star anise can be used, for example. Chef Thomas John, who worked in Boston's Mantra, recommends tempering mustard, fenugreek and fennel seeds in oil to release their fragrant aroma before adding them to a cooked dish.

Aromas can be added more subtly to great effect. Pastry Chef Pauline Lagdameo of The Copper Beech Inn in Ivoryton, Conn., drizzles orange oil on a plate of goat-cheese panna cotta because she wants to give more depth without affecting the setting power of the gelatin in the dessert. When he serves tender cooked lamb beneath a nest of smoldering eucalyptus leaves, Alinea's Achatz calls it "seasoning through aroma."

"Eucalyptus is not a palatable foodstuff, but I can heat the leaves and activate the volatile oils, and you get the minty notes that pair well with the lamb," explains Achatz.

Using essential oils made from fragrant ingredients allows chefs full freedom to explore the possibilities of fragrant cooking. "Black-pepper essential oil shows a whole different side of pepper. It's flowery," says Mandy Aftel, owner of Aftelier Perfumes in Berkeley, Calif., and fragrant-food guru to many chefs.

"Fresh ginger essential oil is citrusy. It is the essence of the fresh aroma, not like dry ginger," says Aftel, who



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Chef Achatz uses non-edible ingredients like burning oak or eucalyptus to “season through aroma.”

co-authored “Aroma: the Magic of Essential Oils in Food & Fragrance” with Coi Restaurant’s Patterson.

“Less is more. Way less is more,” she cautions. “Add essential oils at the very end. These aromas are volatile

and will disappear.” And, to prevent ruining an entire batch, add the oil to a small quantity of your mixture. “If it is way too much, you won’t have to toss the whole batch,” she says.

Patterson warns that essential oils are extremely intense, must always be diluted and should never be applied directly to the skin.

FIND THE FLAVOR NOTES

Using unusual, fragrant materials to complement cooking is effective because hundreds of chemical elements contribute to a food’s aroma. For example, the chemical compounds (aldehydes) that produce the scent of a fresh tomato and its crisp, green stem are also found in most green vegetables, as well as in thyme, cinnamon bark, lemon grass, perilla and peppermint.

Duck, which pairs well with citrus flavors, is embellished here with rosewater.



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TRADITIONAL FLAVOR MATRIX

Flavorists use these terms to describe aroma characteristics:

- ▶ Green, grassy
- ▶ Fruity, ester-like
- ▶ Citrus, terpenic
- ▶ Minty, camphor
- ▶ Floral, sweet
- ▶ Spicy, herbaceous
- ▶ Woody, smoky
- ▶ Roasty, burnt
- ▶ Caramel, nutty
- ▶ Bouillon
- ▶ Meaty, animalic
- ▶ Fatty, rancid
- ▶ Dairy, buttery
- ▶ Mushroomy, earthy
- ▶ Celery soup
- ▶ Sulfurous garlic

SOURCE: PERFUMER & FLAVORIST, SEPT./OCT., 2000

When considering aromatics, try to dissect the flavors in a dish. Identify the flavor notes using the flavorist's vocabulary [see "Traditional Flavor Matrix" sidebar above]. Pair aromas in the same flavor family. Duck, for instance, pairs well with citrus flavors, making grapefruit or black-pepper oil great supporting aromas.

Adam Schreier, corporate chef of Mastertaste, a global flavor manufacturer, recommends starting with

something familiar. "Chocolate and cardamom work well together," he notes.

Chocolate is, in fact, one product that seems well-suited to aromatic flavors. Citrus oil from lemon, lime or bergamot is effective in ganache because flavor can be added without affecting the formula. Richart Chocolates is one of many chocolate companies offering both spice and floral collections. Its floral bon bons include ganache centers perfumed with rose and ylang-ylang, the flower of the cananga tree, used in perfumery. Not to be outdone, chocolate is the next big perfume trend; Bulgari's latest fragrance, Blu Note, smells of galangal, iris and dark chocolate, according to the company.

Floral essences fit naturally in the sweet kitchen. Classic French patisseries call for orange- and rose-flower waters in custards and sponges. Orchid is a typical flavor in ice cream in Turkey and can be found at Mashti Malone's Ice Cream in Los Angeles. Beverages also make a good medium for floral essences; just think of jasmine tea. Calson Industries in Seattle makes a huckleberry-violet syrup called Hucketta, which is recommended for black-tea beverages.

WORKING WITH NATURAL ESSENCES

Of utmost importance, according to Aftel, is using natural essences, nothing synthetic.

"Look for products labeled GRAS, or Generally Recognized As Safe, often available on the Internet." And use restraint. "Experiment," she warns. "Do not take a dish out into the world until you have tested it." Many scents are polarizing, appealing to some and alienating others. One drop of traditional Sicilian jasmine gelato can smell and taste like an overpowering soap to some.

Chef Bill Yosses, who uses fragrant foods in his cooking as well as in culinary demonstrations, says, "Perfume in food is really a turn-off when done wrong. I am trying to offer more choices and more layers in my cooking and use mostly natural ingredients like lemon verbena, lavender and perilla oil."

SELLING WITH SCENT

Bakery operators have long known the selling power of enticing food aromas wafting out of ovens and into streets. Now companies such as ScentAir and AromaSys are betting that evocative scents piped into hotels, spas, retail stores and even foodservice

- ▶ **DESSERT IN BLOOM:** Floral scents are natural, classic pairings for sweet treats
- ▶ **COMMON SCENTS:** Use products labeled GRAS (generally recognized as safe) and always test your handiwork thoroughly

operations will trigger a subliminal impulse to spend. Think of this as aroma Muzak.

Hotels and retail outlets, such as Samsung Electronics Experience Stores, hire fragrance companies like International Flavors and

Fragrances to create brand scents. But systematic use of food scents to increase food sales is a new frontier.

For competitive reasons, few companies will comment, but ScentAir strategically piped out sugar-cookie and waffle-cone aromas to drive customers to an ice cream parlor located in the basement of the Hard Rock Hotel in Orlando. And ScentSational Technologies, the leader in "olfaction packaging," is well on its way to incorporating aromas into food packaging.

"You connect to the consumer with smell," says Steven Landau, ScentSational's president. His company impregnates plastic bottles, flexible pouches, and microwaveable plastic trays with aromas and flavors.

Chefs are looking to fragrant ingredients like cinnamon bark to enrich the overall dining experience.

Landau says in the past people ate "family style with all the aromas of food" surrounding them.

"Today they eat alone out of a microwave tray."

According to studies conducted by Dr. Alan Hirsch of the Smell and Taste Treatment and Research Foundation in Chicago, "if a company can associate a mood state with a smell, it can transfer that happy feeling to the product."

Happily for chefs, there is no need to create a virtual aroma reality. Patterson considers aromas a new "lens through which to view the dining experience," making this an exciting time for both chefs and diners, as the vocabulary for tasting food and the concept of the eating experience evolves. ☺

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