# Forward Thinking: Savor the Flavor

Fermented, pickled and smoked are the latest techniques influencing savory flavor directions, while cannabis cuisine is just emerging.

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he savory flavor category crosses multiple applications, including traditional meat and poultry products, vegetables, vegetarian products, sauces, seasonings, soups, dressing and snack foods. These category boundaries are blurring; savory flavors can now be seen in unexpected segments, such as alcoholic and non-alcoholic beverages, confections and even dairy products. (Trendincite's "Forward Thinking: Milking It" article, which appeared in the August 2014 issue of *Perfumer & Flavorist* magazine, addressed savory dairy trends.)

Ratapol Teratanavat, Ph.D., director of consumer insights and market research at Takasago International Corporation (USA), stated, "We are seeing cross category flavor inspiration where savory flavors are seen in sweet snacks, yogurt and beverages. Likewise, sweet flavors are also being incorporated in traditional savory products. This trend brings fresh and interesting flavor concepts to consumers, particularly among those who enjoy the layering of taste experiences."

According to market research firm Markets and Markets (www.marketsandmarkets.com), the savory ingredients market is projected to grow at a healthy compound annual growth rate (CAGR) of 5.7% between 2014 and 2019 and reach \$13,295 million by 2019. Protein-packed snacks made from plants, meat and insects are driving savory innovation. Bone broth soup and drinkable veggies are additional areas of activity, while Asian and Hispanic flavors are fueling internationally inspired ethnic ingredients and cuisine.

Meanwhile, the health and wellness trend has led consumers to be more ingredient conscious, creating a demand for clean labels with "free-of" claims. To acknowledge consumers' desire for flavorful and tasty, yet healthier products, flavor houses are investing in flavor and taste modulation technology. Finally, fermented, pickled and smoked profiles are the newest techniques influencing savory flavor directions—and cannabis cuisine is just beginning.

## **Snacking Redefined**

Changes in lifestyles, family structure and technology have changed America's eating habits and behavior, which has redefined snacking.

"As consumers face busy lifestyles, 'simple and convenient' are important factors," said Teratanavat. "The lines between breakfast, lunch and dinner are blurring, and we see room for more fluid eating occasions, snacking and on-the-go meals to fulfill individual needs."

According to data from Dupont Nutrition & Health (www.dupont.com), "more than 86% of Americans snack daily and 51% of snacking consumers eat three or more snacks per day." Packaged Facts (www.packagedfacts.com) reported that Americans are snacking between meals and snacking as meals. It also noted that, in 2014, 38.5% of survey respondents indicated they are multiple small meals instead of three larger meals.

Current North American snack sales are estimated at \$124 billion and are growing at a rate of 2%, according to Nielsen (www.nielsen.com) research. The NPD Group (www.npd.com) predicts that snack foods eaten at, or as, a main meal will grow by approximately 5% over the next five years to a value of \$86.4 billion by 2018. According to data from Euromonitor International (www.euromonitor.com), savory snacks in the U.S. grew by just under 3%, surpassing \$35.2 billion between 2008 and 2014.

In quick service restaurants (QSR), YUM! Brands Inc.'s Taco Bell is leading the so-called "snackification" of America. In 2006, Taco Bell coined the phrase "fourth meal," which is an additional meal usually eaten between midnight and 4 a.m. Taco Bell is constantly pushing the envelope with innovative new products, such as the *Doritos Locos Taco*, followed by *Cool Ranch* and the soon-to-be-released *Fritos Locos Taco*. On the consumer side, Frito-Lay is stirring the pot with new products, such as *Doritos Jacked 3D Jalapeño Pepper Jack* chips in triangle, mazelike shapes. Expected this summer, *Bacon Cheddar Ranch* is the next flavor for the range.

Interestingly, Doritos was ahead of its time and originally launched 3D Doritos in 2008, which were a puffed triangle-shaped chip. In 2012, PepsiCo announced plans to develop a range of snack-based drinks. CEO Indra Nooyi noted at the time, "[A] way to grow the beverage business is to take foods and drinkify them." This vision came to fruition with the launch of PepsiCo's Mtn Dew Dewitos, the nacho-flavored soda, which was test marketed in late 2014.

Savory snacks encompass so many different categories and applications, which are continually being redefined by changing consumer demands. Teratanavat predicted "snack and on-thego products will be redefined as consumers view convenience from processing to preparation differently." Meanwhile, one of the many flavor trends Innova Flavors identified is "Complex," which Daniela Garza, marketing director, and Dafne Diez de Medina, Ph.D., vice president innovation, research and development, described as "multidimensional, layered flavors that are interesting."

## **Less Is More Clean Labels**



Hungryroot's Rutabaga Noodles with Roasted Mushroom Pistou.

Consumers' desire for healthier lifestyles has made consumers more responsive to ingredients, leading to the scrutiny of food and beverage labels. Consumers specifically want to know what is or is not in a product. Garza and Diez de Medina define this trend as "wholesome" and see the growth of clean labels, non-GMO, glutenfree and non-allergen foods and beverages.

Aaron Graham, director of creative services, flavors, Bell Flavors & Fragrances, agreed: "While the healthy category is not new, it continues to play an important role in savory applications and at quick service restaurants. While not clearly defined, gluten-free, non-GMO and organic-compliant are all increasingly important attributes."

Litehouse Foods' Green Garden dressing line and Hungryroot's farm-fresh sevenminute meals are two good illustrations of these trends. Green Garden is a new line of non-GMO, gluten-free and USDA certified organic olive oil-based dressings offered in five flavors: Balsamic Herb, Lime Cumin, Orange Miso, Pomegranate Hibiscus and Sweet Onion. Hungryroot, which launched in April, is a six-SKU (stock-keeping unit) line of ready-to-cook prepackaged, all-natural, locally sourced, non-GMO, gluten-free, under-500 calorie meals based on noodles made from vegetable roots. The varieties of noodles are: Beet Noodles with Savory Thai Sesame; Carrot Noodles with Tangy Sriracha Peanut; Rutabaga Noodles with Roasted Mushroom Pistou; Sweet Potato Noodles with Creamy Cashew Alfredo; Turnip Noodles with Toasted Walnut Pesto; and Zucchini Noodles with Sweet Basil Gremolata. The products promise to "maintain farm-fresh crunch and flavor for 14 days without preservatives," the result of Hungryroot's proprietary Naturefresha package.

To address the consumers' continuing demand for clean flavors in the meat and savory category, Innova Flavors developed the Ultra-Clean line, which was inspired by classic culinary cooking techniques. The proprietary technology has no artificial flavors, no preservatives, no hydrolyzed vegetable protein (HVP), no AYE (autolyzed yeast extract), no starches or other carriers and no added I+G or MSG (monosodium glutamate).

### **Snacks Plant a Seed**

In addition to clean labels, protein is a popular buzzword and has become a focus in snack foods, particularly snack bars. The U.S. nutrition bar segment reached \$2 billion in

<sup>&</sup>lt;sup>a</sup>Naturefresh is a trademark of Hungryroot.

bUltra-Clean is a trademark of Innova.

2014 and grew 8%, according to Packaged Facts. Manufacturers are responding by creating plant-based protein snacks using vegetables and legumes.

According to Innova Market Insights (www.innovadatabase.com), between 2012 and 2013 there was a 48% increase in product launch activity for savory biscuits and crackers with vegetable and legume inclusions.

Gladys Slovis, flavor applications manager at Comax Flavors, stated, "Ancient grains and seeds, like quinoa, amaranth, farro and chia are being consumed more often as a snack, as seen in nutri-



Way Better Snacks Sweet Chili flavor is formulated with organic sprouted broccoli, chia, daikon radish, flax and quinoa seeds.

tional bars and granola, as a side dish or a full meal."

Nuts and seeds accounted for more than 37% of global snack food launches in 2013, and in the U.S. 32% of all new snack products were nut- and seed-based, according to Innova Market Insights.

Last year, Strong & Kind Bars launched a savory line, which uses almonds, pumpkin seeds, honey, pea crisp (pea protein

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isolate, rice flour, rice starch) and hemp seeds. Strong & Kind Bars are available in five flavors: Hickory Smoked, Honey Smoked BBQ, Honey Mustard, Roasted Ialapeno and Thai Sweet Chili. Similarly, Mediterra Inc. introduced a line of six all-natural nutrition bars inspired by the Mediterranean diet. Two of the six bars are savory. The savory variant Olive & Walnuts contain green pepper, extra virgin olive oil, protein-rich pea crisps and chives, while Sundried Tomato & Basil has basil, capers, protein-rich pea crisps, extra virgin olive oil and crushed cashews.

Supported by a Kickstarter campaign, Savory Harvest, "The UnSweet Snack Bar," launched in March at Natural Product Expo West. The savory bars include spinach, kale, almonds, pumpkin seeds, flax and chia, and are high in protein, with 9 g per bar. They are available in three flavors: Hickory Smoked BBQ & Cheddar; Parmesan, Tomato & Herb; and Sriracha, Cheddar & Lime.

"Savory applications in non-savory products are being requested more often," Slovis explained. In response, Comax Flavors has designed a line of savory nutritional bars in flavors like *Ginger Sesame Caramel, Honey Barbecue Peanut, Teriyaki* and *Vegetable Curry*.

There is a dizzying array of examples of innovative products using a variety of protein-packed vegetables and legumes. Popchips Inc. extended its line with Veggie Chips made from beets, red bell peppers, spinach, tomatoes, peas, pumpkin, chickpeas and beans. Three flavors are available: *Hint of Olive Oil, Sea Salt* and *Tuscan Herb*.

*Pirate's Booty Carrot Snacks*, made with carrots and corn, are the newest non-GMO snack from Pirate Brands. The baked puffs are certified gluten-free and contain no trans fat, preservatives or artificial colors or flavors.

Snack Out Loud is a newcomer and offers *Crunchy Bean* snacks based on roasted pinto beans in sunflower oil. The Crunchy Bean snacks are gluten-free, nut-free, non-GMO, all natural and vegan. They are sold in *Jalapeño Cheddar*, *Ranch*, *Sea Salt*, *Smoky Chipotle BBQ* and *Tomato Basil* flavors.

Biena is a line of snacks based on roasted chickpeas. *Habanero Chickpea* is the newest addition and contains 5 g of protein and 24% daily fiber.

Way Better Snacks uses sprouted ingredients including sprouted seeds, grains and beans in the company's chips and crackers, which are non-GMO and gluten-free. The whole grain corn tortilla chips come in eight flavors, such as <code>Mustard+Onion</code>, which highlights organic sprouted flax seed and quinoa, and <code>Sweet Chili</code> with organic sprouted broccoli, chia, daikon radish, flax and quinoa seeds. The brand recently launched a line of sprouted barley crackers in four savory varieties: <code>Black Bean & Salsa; Mustard & Cheddar; Rosemarry Me & Olive Oil;</code> and <code>Salt & Cracked Pepper</code>.

Bella Sun Luci Sun Dried Tomato Snacks are a novel new product. According to Mooney Farms, these snacks "combine premium California sun-dried tomatoes and select spices to bring you a fat-free, lycopene-rich snack that is full of flavor." *Sweet and Spicy BBQ* and *Slow Roasted Smokey Flavor* are the two varieties offered.

Hummus, the Middle Eastern chickpea spread, is experiencing growth in the U.S. It is reported that consumer spending on hummus has reached \$1 billion a year, after growing some 18% a year over the past five years. McCormick's 2015 Flavor Forecast highlighted "Middle Eastern Mezze" as a trend that "offers an approachable and delicious introduction to a vibrant global cuisine."

The popularity of hummus in consumer packaged goods, including brands, such as Sabra and Tribe, has led to a rise in Israeli restaurants. Philadelphia's Dizengoff is an "Israeli hummusiya," which offers a rotating selection of hummus variations, while New York City's Bar Bolonat offers "modern Mediterranean and new Israeli cuisines."

Christopher Warsow, corporate executive chef for Bell Flavors & Fragrances stated, "Middle Eastern cuisine is a trend with legs because of its healthy aspects," and adds that "the familiarity with hummus is the gateway to other Middle Eastern ingredients."

## **Snacks Beef Up**

In addition to plant-based protein, protein through meat is being revisited. Fueled by the Paleo and Atkins diets, there's been an increased consciousness of meat-based protein. "America's sports nutrition market has been reshaped by a clear shift toward savory flavors and meat in the bar category," notes Packaged Facts. According to data from market research firm IRI (www. iriworldwide.com), the U.S. market for jerky has reached nearly \$1.5 billion, with a 13% increase in sales since 2013.

In January, the Hershey Company announced plans to acquire Krave Jerky, the all-natural jerky brand that is free of gluten, nitrites, MSG and corn syrup. Krave's line includes beef, pork and turkey jerky in a variety of different flavors, including



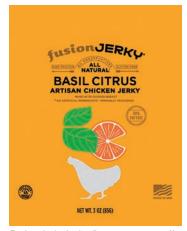
Meat Chips are a gluten-free protein source made from ground corn and white chicken meat, available in Nacho, Pepper, Ranch and Salsa flavors (pictured).

Basil Citrus, Black Cherry Barbecue, Chili Lime, Garlic Chili Pepper, Lemon Garlic, Pineapple Orange, Sweet Chipotle and Grilled Sweet Teriyaki. The company also offers the artisanal line, created in partnership with Whole Foods Market, which is described as "a small batch line extension with uniquely crafted flavor profiles and proteins sourced from GAP 5-Step rated farms." The five flavors available are Chardonnay Thyme, Honey Peach Barbecue, Five Peppercorn, Sesame Ginger and Cabernet Rosemary.

Another unique brand is Fusion Jerky, an all-natural line of beef, pork, turkey and chicken jerky, which "blends the innovation of American flavors with the soft consistency of Asian-style jerkies to offer a taste and texture experience." The line consists of eight flavors, such as *Basil Citrus*, *Garlic Jalapeño* and *Island Teriyaki*. The company is the first to launch a chicken jerky.

Meat Chips are a gluten-free protein source made from ground corn and white chicken meat. Available in four flavors, including *Nacho*, *Pepper*, *Ranch* and *Salsa*, each 2.6 ounce bag contains 21 g of protein.

Recognizing the demand for protein-rich meat snacks, Oscar Mayer released a collection of Oscar Mayer P3 Portable Protein snack packs, which contain a combination of Oscar Mayer Selects meat, Kraft cheese and Planters nuts. There are six different choices, with meats such as Applewood Smoked Ham, Rotisserie Seasoned Chicken Breast and Slow-Roasted or Applewood Smoked Turkey Breast. Four out of the six packs contain reduced fat cheeses, like cheddar,



Fusion Jerky is the first company to offer chicken jerky. It is available in Basil Citrus and Lemon Pepper varieties.

marbled Colby and Monterey Jack. Nuts featured are cashews, dry roasted almonds and dry roasted peanuts.

Hormel added Rev #14 Turkey Bacon Ranch, #15 Buffalo Chicken and #16 Jalapeño Pepperoni to its Rev Wrap line. Following the breakfast on-the-go trend, Hormel rolled out four Rev a.m. Wraps, which feature either bacon, sausage or ham with egg and cheese and have 13 g of protein or more.

In 2014, Jimmy Dean added Apple Cinnamon Pancakes & Sausage on a Stick and Very Berry Pancakes & Sausage on a Stick to its Pancakes & Sausage on a Stick product portfolio.

'Nduja and Schmacon are two novel products in this space. 'Nduja, a cured spicy spreadable salami originally from Calabria, Italy, has received some press and, with the renewed interest in savory meat, may gain some market traction. It was traditionally made with pork shoulder, back fat, belly and spicy Calabrian peppers. Schmacon, smoked uncured beef slices, is a new, innovative alternative to traditional pork bacon. According to the company, the all-natural beef product has "a uniquely smoky, sweet flavor and crispy, meaty texture."

## **Bone Broth Soup**

While on the subject of meat, a savory trend that the press took stock in during the winter was bone broth soup, which received attention for its healing, nourishing properties. Although bone broth soup isn't new, chefs have been making stock from various animal bones for years.

Driven by the popularity of nose-to-tail cooking, new cuts of meat and artisan butchery, chefs and restaurateurs have been capitalizing on the trend. Brodo, from New York City's Hearth restaurant, is a take-out window focused on sippable bone broths, while Bone Deep & Harmony is a subscription-based bone broth company. Similar to other subscription services, customers can purchase monthly, seasonal or annual subscriptions for their soup.

Red Apron Butchery in Washington D.C. had an interesting spin on the bone broth soup trend. The restaurant offered smoked chicken, pork and beef varieties with an option to add a spice blend for an extra 50 cents. Spice combinations included lemon and thyme; turmeric, orange and cinnamon; basil, ginger, jalapeño and lime; and fennel pollen, oregano, lemon, garlic and chili flake.

#### **Cricket-based Snacks**

In addition to plant- and meat-based protein, several startups are creating cricket-based snacks that highlight protein. Crickets contain amino acids, omega-3 fatty acids, insoluble fiber and B vitamins, as well as iron and potassium. It's said that house crickets have approximately 21 g of protein per 100 g of cricket, while ground beef has about 26 g per 100 g of meat. Additionally, crickets are a sustainable food

resource, which has led to an increased interest and exploration of insects as food.

Utah-based Chapul Bars, "the original cricket bar," pioneered the use of cricket flour in protein bars. The *Thai* bar is formulated with coconut, ginger and lime. Hopper Foods in Austin, Texas, offers a line of cricket bars with interesting flavors, such as Kale, Green Tea and Seaweed & Ginger. However, the bar line has been discontinued, and now the company offers Hopper Crunch with paleo granola made with cricket flour. Cacao & Cayenne is currently the company's best seller and is formulated with almonds, pumpkin seeds,



Hopper Foods has launched a line of cricket snacks, including Cacao & Cayenne (pictured).

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raw honey, walnuts, cashews, sunflower seeds, dates, apricots, cocao nibs, coconut, cricket flour and coconut oil.

Out of Cambridge, Massachusetts, Chirps are made with beans, rice and cricket flour and have three times the protein and half the fat of the leading potato chip. They are available in *Aged Cheddar*, *Sea Salt* and *Hickory BBQ* flavors.

According to Julian Mellentin, company director and founder of New Nutrition Business, insects as an ingredient in everyday foods could be a \$350 million business in the U.S. and Europe within 10 to 15 years. Cricket flour is said to have a nutty flavor and, although it may take a long time to catch on, flavor houses need to be prepared to formulate in this new base.

## **Drinkable Veggies**

Protein-based foods aren't the only snack that's appealing to the savory palette. Research shows consumers' interest in fruits and vegetables; however, children and adults are not meeting their recommended nutrition fruit and vegetable guidelines. According to the U.S. Department of Health and Human Services, only 6% of Americans eat the recommended amount of vegetables.

Natural and nutritious ingredients in fruits and vegetables have a healthy halo because of their naturally occurring functional ingredients, such as nutrients, vitamins, antioxidants and fiber. Food and beverage manufacturers are capitalizing on this trend by adding vegetables to their formulas.

Arty Water is a novel new product based on California artichokes balanced with organic lemon, apple and spearmint and sweetened with organic blue agave and natural monk fruit. The company boasts that the drink only contains 30 calories per serving. Organic Beet Juice by Love Beets joined the company's lineup in January; it is gluten-free and has no added sugar.

Led by vegetarianism, veganism and raw food lifestyles, coldpressed vegetable juices are on-trend. Health food stores, juice



Master spice blender Lior Lev Sercarz of La Boîte and star mixologist Jim Meehan collaborated to create four Bloody Mary spice blends, which are sold with recipe cards and alcohol recommendations.

bars, online retailers and QSRs have been offering an array of vegetable- and fruit-based juices and smoothies, popularizing the trend for "drinkable veggies."

For example, Juice Press, which launched its first store in 2010 in New York City, now has 21 stores and continues to expand. The company offers an extensive line of cold-pressed juices and smoothies in kitsch names and savory combinations. South Of The Border is a spicy cucumber gazpacho formula made with cucumber, yellow bell pepper, olive oil, lime, avocado, cilantro, sea salt, apple cider vinegar, parsley, garlic, chipotle and onion, while the Remedy—Turmeric Tonic features filtered water, raw honey, lemon, ginger, turmeric, Celtic sea salt, spearmint, cardamom and cayenne. Mother F&\*%In' Fireball is the newest launch and contains cucumber, celery,

Swiss chard, kale, dandelion, parsley, orange, ginger, lemon, cayenne and oil of oregano.

W.G. Peacock of Evanston, Illinois invented V8 Vegetable Juice in 1933, and the Campbell Soup Company acquired the formula in 1948. V8 pioneered the savory vegetable juice trend in the mass market with the original formula, which contains eight vegetables: beets, celery, carrots, lettuce, parsley, watercress, spinach and tomato. V8 has expanded over the years and, in January, introduced V8 Vegetable and Fruit Juice Beverages in four variants that have no added sugar or artificial ingredients and are 60 calories or less. Carrot Mango combines carrot and mango; Golden Goodness contains sweet potatoes, yellow carrots, orange carrots and orange; *Healthy Greens* features

spinach, yellow carrots, apples and pineapple; and *Purple Power* uses purple carrots, beets and apple. Additionally, last year, Campbell's launched the V8 Vegetable Juice Cocktails in three flavors: *Mint & Lime*, *Sea Salt & Clam* and *Spicy Mango*.

In March 2015, Tio Foods LLC, launched its new line of gazpacho beverages in three formulas. *Gazpacho Clásico* features tomatoes, cucumbers, green peppers and garlic, while *Gazpacho Verde* blends kale, spinach, avocado and cucumber with mint, jalapeño peppers and cumin. *Gazpacho de Sol* uses vine-ripened yellow tomatoes, freshly squeezed carrot juice and yellow bell peppers.

Tomato used as a savory base is appearing in innovative cocktails, particularly the Bloody Mary. According to Technomic's MenuMonitor Q1 2014 data, Bloody Marys rose 8.7% from the year before on restaurant and bar menus. Additionally, Technomic (www.technomic.com) reported chipotle, bacon and Cajun seasonings ranked as the top three fastest-growing flavors in specialty drinks from Q1 2013 to Q1 2014.

For example, the Palomino Restaurant & Bar offers the *Palomino Bloody Mary* concocted with Stoli Hot Jalapeno vodka, house-smoked mozzarella, pepperoni, Kalamata olives and herb salt. An odd and notable savory cocktail is the *Vegan Sacrifice* from the Range restaurant in Washington, D.C. It is formulated with scotch, ginger, cayenne and "meat ice."

According to Dane Nakamura, the beverage director, meat ice is: "San Marzano tomato water with trimmings (cured meats, raw beef, unused vegetables) and seasonings (Old Bay, bay leaves and a classic mirepoix of carrots, onions and celery).

Tio Foods LLC's line of gazpacho beverages in three formulas: Gazpacho Clásico, Gazpacho Verde and Gazpacho de Sol.

The mixture is made into a stock that is cooled, clarified and combined with egg whites and a splash of pigs' blood and then frozen."

Tecate by Heineken recently launched Tecate Diablo, "a Mexican beer mix based on a traditional michelada recipe that includes beer, tomato juice, lime and spices."

Master spice blender Lior Lev Sercarz of La Boîte and star mixologist Jim Meehan collaborated to create four Bloody Mary spice blends, which are sold with recipe cards and alcohol recommendations. *B-Maria* is for a tequila-based cocktail and features green chilies, cilantro, chipotle and spices, while the *B-Marion* is recommended for a "rye bready" flavor and uses caraway seeds, anise, orange, salt and spices. *B-Marlene* is designed for gin with juniper berries, cardamom, coriander, salt and spices, and *B-Mary*, made for vodka, highlights smoked paprika, pimentón, celery seeds, pepper and salt.

## Internationally Inspired

According to U.S. Census Bureau population estimates as of July 1, 2013, there are roughly 54 million Hispanics living in the United States, representing approximately 17% of the U.S. population. The U.S. Hispanic population for 2060 is estimated to reach 128.8 million, and is expected to represent approximately 31% of the U.S. population. According to the U.S. 2012 Census, the Asian population is expected to grow from 15.9 million in 2012 to 34.4 million by 2060.

These two large ethnically diverse groups are heavily influencing savory flavor profiles in both restaurant cuisines and consumer packaged goods. The younger demographics, particularly millennials, who are multicultural, experimental and hyperconnected, are also contributing to the demand and growth of global flavors. The National Restaurant Association (NRA) reports that, "Millennials view dining out as a social event (i.e., a chance to connect), and their diversity and interest in new things draw them to more ethnic restaurants."

Innova Flavors labels this trend "Authentically Ethnic" and describes it as comprising flavor profiles, ingredients, dishes and experiences that are true and authentic.

Slovis concured, "Across the board we are seeing the desire for more international tastes and flavors, particularly the consumer's desire to be able to prepare these dishes at home and in a shorter time. This is seen [with] all the new gourmet sauces, dips and condiments [to which] the consumer can add vegetables and protein components to create his or her own gourmet dish. Some blends that are very popular are *Honey Toasted Sesame*, *Sriracha Maple*, *Pecan Chipotle* and *Za'atar*."



Starkist and executive chef Ryan Scott collaborated on Gourmet Selects in three "Internationally Inspired" flavors: Mediterranean, Mexican and Thai.

Likewise, Innova Flavors launched the "Condiments Around the World" program in February 2015. According to Garza and Diez de Medina, the collection comprises "authentic flavors that take you on a tasting journey around various countries with exciting new flavors that are unique and multidimensional, such as Chilean pebre, Greek tzatziki, Mexican chamoy, Middle Eastern za'atar and Moroccan harissa."

A good example of this trend being translated into consumer packaged goods is StarKist's new Gourmet Selects Tuna Pouches. StarKist and executive chef Ryan Scott, a TV and radio food show host, collaborated to create three "internationally inspired" flavors. Made with wild-caught, premium tuna mixed with real vegetables, the line features *Mediterranean* with chopped sun-dried tomatoes and extra virgin olive oil, *Mexican* with diced jalapeños and sunflower oil, and *Thai* with diced chili peppers and sunflower oil.

Teratanavat sees the evolution of this trend as "deepening ethnic," which he describes as "regional cuisines across neighboring countries merging, e.g., Peruvian or Brazilian for the LatAm [Latin American] region or Vietnamese and Filipinos for the Asian region."

# **Spice Things Up**

Cardamom, cilantro, chili pepper, chipotle, ginger, jalapeño and wasabi are a few examples of savory ingredients that at one time were exotic and unfamiliar. Now these ingredients are common and ubiquitous because of America's culturally diverse demographics.

"Flavor inspiration from ethnic cuisines are trending as consumers are now open and willing to experience new flavors," said Teratanavat. "Mexican, Japanese and Thai cuisines were once considered ethnic and for niche markets, but now they are mainstream."

Slovis added, "Younger generations are being more and more adventurous about traveling and experiencing new tastes, while social media makes all of us more aware of ingredients, condiments, fruits and meals around the world. Products that we didn't know of a few years ago are now common on supermarket shelves and in our homes."

Warsow refers to this phenomenon as "gateway flavors," which give certain ethnic cuisines traction. By introducing and familiarizing consumers with a specific unfamiliar flavor, it then enables additional flavor profiles to branch out into other unfamiliar, but similar directions.

Not surprisingly, Transparency Market Research (www. transparencymarketresearch.com) reports the global seasonings and spices market is projected to hit \$16.6 billion by 2019, compared to \$12 billion in 2012. It's expected to grow at a CAGR of 4.8% from 2013 to 2019.

In addition, Mintel reported that U.S. retail sales of cooking sauces, marinades and dressings was worth \$7.4 billion in 2013 and are expected to reach \$9.1 billion by 2018. Of the 1,763 respondents surveyed in Mintel's "Cooking Sauces, Marinades, and Dressings—December 2013" report, more than half said "they prefer spicy or hot flavors," more than any other type of profile.

The acceptance of spicy flavors is further evidenced by Food Genius's blog post, which notes how the term "spicy" was a niche trend on menus in 2013 and has now gained wide acceptance. The term "spicy" appeared on more than 60% of menus in 2014.

Garza and Diez de Medina classify this trend as "bold," with the use of intense flavors and spicy ingredients.

# **Asian Appeal**

The introduction of Asian flavors helped propel the savory category and consumers' acceptance of spicy ingredients. Wasabi and ginger are now mainstream flavors in restaurants and have trickled down into snacks such as chips.

Lay's Wasabi Ginger, a finalist from the Lay's "Do Us a Flavor" contest, is a prime example of the mass appeal and reach these ingredients have. Another recent introduction is Chex Wasabi Chips and Chex Mix Xtreme Sweet & Spicy. Nabisco added three



Lay's Wasabi Ginger.

new flavors to the Thin Crisps line, including Brown Rice & Wheat Wasabi & Soy Sauce; Brown Rice & Wheat Sour Cream & Chives and Brown Rice & Wheat Sweet Potato & Cinnamon Sugar.

#### El Sabor de Latinoamérica

Similar to spicy Asian ingredients, there is activity addressing the Hispanic consumer with chili, chipotle and jalapeño flavors proliferating, specifically in consumer packaged goods. For example, Kraft Macaroni & Cheese branched out with new flavors including *Chipotle* and *Jalapeño* variants. In addition, the company launched Kraft Cheese in three "fiery flavors:" *Jalapeño*, *Hot Habanero* and *Pepper Jack*.



Sexy Pop's newest flavor Pineapple Habanero is certified gluten-free, kosher, and free of GMOs, cholesterol and trans fat.

Keebler's now offers Club Cornbread Jalapeño Cracker Bites and Planters offers Chipotle and Smoked varieties in their flavored line. Campbell's Soup released three Latininspired condensed soups: Tomato, Chipotle & Olive Oil; Black Bean, Cumin & Cilantro; and Creamy Poblano & Queso. In February, McDonalds began test marketing its Shakin' Flavors, a packet of seasonings to be used on McNuggets or fries, in Nevada and select locations in California. The three flavors are Chipotle BBQ, Garlic Parmesan and Zesty Ranch. In snacks, Kellogg's followed suit and launched the

Habanero appears to be the "it" ingredient trending at the moment. For example, *Pineapple Habanero* has joined SexyPop's lineup; the product is certified gluten-free, kosher, and free of GMOs, cholesterol and trans fat. In June, Popchips Inc. introduced *Crazy Hot Potato*, which features habanero pepper "balanced with a cheesy note." Late July Snacks rolled out new gluten-free Clasico Tortilla Chips made with USDAcertified organic and Non-GMO Project Verified stone ground corn in four flavors: *Bacon Habanero*, *Crispy Yellow Corn*, *Jalapeño Lime* and *Nacho Chipotle*.

Recognizing America's proclivity for hot and spicy flavors, Bell Flavors & Fragrances created its pepper collection. Graham explained, "The collection capitalizes on the growing demand for more specific and authentic tasting pepper varieties. The market is quickly moving beyond the traditional chili profiles, such as cayenne, jalapeño and chipotle, and exploring other chili types that deliver a unique flavor profile. Examples include aji panca (Peru), with its dried fruit, green grass and tomato notes, or Aleppo (Syria/Turkey), with its zesty citrus and cumin notes."

Warsow added, "The pepper trend is pushing Latin American cuisine to the forefront. The wide breadth of peppers just in Peruvian cuisine could give us many new flavor profiles and create a new experience for most Americans."

Similarly, in accordance with this trend, Sensient Flavors launched a full collection of chili pepper flavors for savory applications.

#### Sriracha Fever

Sriracha, the sweet, tangy paste made from chili peppers, garlic, vinegar, sugar and salt, is the on-fire ingredient appearing in multiple applications, including condiments, snacks, alcoholic beverages and cocktail mixers.

Toni Anthony, market manager at FONA International, said, "Ethnic condiments, such as sriracha and sweet chili, will continue to deliver 'safe' ways for consumers to experience new flavors."

In condiments, Heinz introduced *Tomato Ketchup Blended* with Sriracha, while Hampton Creek, the vegan mayo company, rolled out Just Mayo flavors in *Chipotle*, *Garlic* and *Sriracha*.

POP! Gourmet Popcorn partnered with Huy Fong Foods, the makers of the original sriracha hot chili sauce, to create *Sriracha Popcorn*. Popcorn Indiana also offers a *Sriracha Popcorn* flavor, and Urban Accents carries a *Sriracha Popcorn Seasoning*. Other snack examples include Kettle Brand *Sriracha Potato Chips* and *Krinkle Cut Sweet Chili Garlic*.

UV, the makers of flavored vodka, hopped on the bandwagon and introduced *Sriracha* vodka targeted for Bloody Mary cocktails, while Rogue Ales created the *Sriracha Hot Stout Beer*. Brooklyn Hemispherical Bitters crafts bitters by hand, using local and seasonal ingredients. *Sriracha* is one of four flavors the company sells. Cocktail Crate, an indie cocktail mixers brand, features a *Sriracha Margarita*, which uses Jojo's Sriracha, fresh lime and agave nectar.

Alexander Abbott Boyd, founder of Cocktail Crate, said, "The inspiration for Sriracha Margarita came from my friend Jojo. We were both at a small market in NYC selling our respective products when I had a chance to try her amazing small batch pepper sauce and immediately realized I wanted to put it in a drink."

"What's after Sriracha?" is the burning question on everyone's lips. Chefs, flavorists and trendsetters alike predict that gochujang, a savory and pungent fermented Korean condiment made from red chili, glutinous rice, fermented soybeans and salt, is next. "Asian sauces, especially fermented and pickled varieties, are an emerging trend, capitalizing on the huge success of Sriracha," noted Graham.

Teratanavat acknowledges spicy as being trendy, but believes that the emerging trend is "refining bold flavors," which is "beyond just adding a spicy, hot flavor. It is about balancing flavors to create a bold, yet pleasant taste experience."

Graham concurred and added, "Heat is often an important element of the pepper, but its complex flavor profile and how it harmonizes with other flavors in the finished food system is just as important."

## In a Pickle

America's taste palates are expanding quickly, and fermented and pickled flavor profiles are gaining traction. Pickles are a well-liked U.S. flavor and have been translated into snacks, such as Herr's *Creamy Dill* popcorn, Bigs Vlasic *Dill Pickle Sunflower Seeds* and *Dill Pickles* candy.

Now, kombucha and Korean cuisines have helped spur growth. According to the NRA survey of nearly 1,300 professional chefs, "pickling and fermenting are making a modern-day come-



Food Should Taste Good's Kimchi Tortilla Chips pave the way for fermented flavored snacks.

back, with an in-house pickling process, nontraditional veggies and specialty vinegars high on the list."

Kombucha, the probiotic drink made from fermenting a mixture of bacteria and yeast cultures, has led the way to the acceptance of fermented flavors, especially in the health arena. According to market research firm SPINS (www.spins.com), kombucha sales from February 2013 to February 2014 were \$122.7 million and saw a 29% growth. The newest player on the scene is "acidulated beverages" known as shrubs (drinking vinegars). To add depth and complexity, mixologists are experimenting and creating artisanal shrubs made with aromatic fruits, herbs and spices for their own use in craft cocktails.

In line with at-home pickling, novices are also trying their hand at shrubs.

Kimchi, the spicy Korean pickled cabbage, is gaining popularity because of its bold, spicy flavor. According to Warsow, this trend was fueled by the introduction to Korean BBQ from Chef Roy Choi's Kogi BBQ Taco Truck in Los Angeles. Kimchi is slowly making its way into snacks, like Food Should Taste Good's *Kimchi Tortilla Chips*. It's just a matter of time before the market sees more consumer products using this flavor.

"Black garlic, fermented garlic that mellows a flavor and delivers an earthy, sweetness and umami taste, is on FONA International's radar," said Anthony.

# **Smoke Out**

Inspired by the bacon craze, smoked flavors influenced by ash and grilling techniques are emerging. The Nordic, Scandinavian trend is also contributing to the demand for smoked meats and fish.

"[S]moking spices and herbs deepen their flavor and aroma, adding richness to meals and drinks," according to McCormick's 2015 Flavor Forecast, an annual forecast of eight flavors to watch.

Phil Lempert, the Supermarket Guru, predicts that smoke flavors will permeate our foods. According to Urbanspoon, "after liquids and cocktails, 2015 will see the (smoked) flavor-enhancing technique applied to vegetables."

Smoking is not just for meat, vegetables and cocktails; it's now wafting into desserts. According to a March 2015 Nation's Restaurant News article, "chefs from all corners of the country are infusing cakes with the smoky flavors previously reserved for savory dishes."

For example, Washington, D.C.'s Del Campo restaurant offers Grilled Carrot Cake with Cream Cheese Ice Cream, and Dulce de Leche; Grilled Lemon Cheesecake with Pavlova Burnt Blueberries; and Smoked Pumpkin Flan with Applewood Smoke, and Pumpkin Seed Brittle. The Spot Dessert Bar in New York City features a Smoked Coconut Cheesecake—Smoked with Thai Aromatic Candle, Coconut Ice Cream and Basil Seeds.

Graham foresees premium indulgent savory products playing an important role, with fresh, bold and great-tasting high-impact flavors being the primary goal. He predicts "charred or woodsmoked beef, rich buttery cheese flavors, fresh aromatic herbs, and intense umami flavors playing an important part in delivering a highly indulgent flavor profile."

## **Cannabis Cuisine**

The legalization of marijuana in some U.S. states, such as Colorado, Washington, Alaska and Oregon, has spawned the growth of cannabis cuisine and consumer products. Marijuana is beginning to pop up in food and beverages.

"We are seeing cannabis and cannabis oils being added to craft products like syrups for cocktails, sodas and desserts, baked goods of all kinds, and even cold-brew coffee," said Kara Nielsen, culinary director at the Sterling Rice Group (SRG).

Cannabis Creamery has been supplying cannabis ice cream to medical marijuana dispensaries for over a year, while founders Ben Cohen and Jerry Greenfield of Ben & Jerry's said in an interview that they would consider making a pot-flavored ice cream in places where it's legal.

Chefs are also experimenting and incorporating marijuana in their food. For example, Colorado's Hapa Sushi restaurant offers a pot-and-dinner pairing menu, and Philip Wolf, founder of Cultivating Spirits, hosts cannabis cooking classes, as well as food, wine and cannabis pairings. New York City Chef Frank Falcinelli of Frankies 457 predicts that "the more sophisticated marijuana agriculture becomes, the more control growers will have over all kinds of nuances and flavor notes."

Hemp is a good source of fiber and protein and contains omega-3 fatty acids. Suzy Badaracco, president of Culinary Tides, predicts hemp will become more mainstream and sought after as the popular seed next year.

"We expect to see hemp hearts in more cereals and other foods, obviously there is no intoxication effect, but its popularity has to be tied to the marijuana culture explosion," noted Dana McCauley, vice president, marketing, at Plat Du Chef.

The emergence of cannabis in food and beverages will create new opportunities for flavor suppliers to create unique flavor profiles for specialty foods and indie brands.

# Make it Tasty

The health and wellness trend continues to evolve in the U.S. as more consumers search for healthier food and beverage choices. Regardless of lifestyle or dietary restrictions, consumers do not want to sacrifice taste and expect flavorful products.

In response, flavor houses are investing in flavor and taste modulation technology to offer better-for-you products. For example, Innova Flavors has a full line of taste modifiers, including maskers, blockers, enhancers and sodium reducers.

"We see an increased demand for modifiers to facilitate the delivery of alternative 'better for you' products, such as soy analogs for vegetarian products, which often require a soy masker/bitter blocker," explain Garza and Diez de Medina.

Similarly, Takasago offers unique proprietary flavors and technologies that go beyond taste enhancement.

"Our Intensates flavors, including Sensates Technology and [the] Taste Modulation System, are designed to provide a full taste experience for consumers," noted Teratanavat.

Sodium reduction is also a topic of interest, particularly in savory applications. According to Garza and Diez de Medina,

<sup>c</sup>Intensates and Sensates are trademarks of Takasago.

Innova Flavors' sodium reducers facilitate achieving reductions of 30% to 50% and in many cases provide flavor enhancement.

"In the area of salt reduction, Takasago leverages our Japanese heritage, and we have developed knowledge and expertise in Japanese traditional taste modulation, such as umami and koku," said Teratanavat.

Aware that many savory foods require extra processing, flavor houses are designing stable products that can withstand extreme conditions.

Teratanavat stated, "Takasago's flavors are developed to be thermally stable and heat resistant, which are critical in shelf-stable products."

Slovis agreed and explained, "One challenge Comax Flavors often faces is the extensive processing parameter that savory products are subject to. We know one of our customer's biggest concerns is how the flavors are going to behave during and after processing, this is why Comax offers a full line of savory flavors that are strong enough to withstand these conditions."

## **A Challenging Environment**

A universal challenge that the flavor houses are experiencing is ingredient regulation and the push toward clean labels. According to The Hartman Group's "Organic & Natural 2014" report, four out of 10 consumers claim to be avoiding or reducing genetically modified foods in their daily diets, mainly because they are concerned about the possible impact of GMOs on their health and well-being.

"Our biggest challenge today is meeting highly restrictive criteria for product development such as non-GMO (Non-GMO Project), USDA natural, etc," said Garza and Diez de Medina.

Teratanavat concurred, "Consumers are interested in simple ingredients that they can understand when they read the label, this translates into the transparency and clean labeling trend." He added, "Global regulatory compliance poses another challenge where different countries/regions have different requirements and interpretations, presenting logistical and operational challenges when developing for a global customer."

From short ingredient statements, to the restriction of certain ingredients, Garza and Diez de Medina see the common thread amongst all flavor trends currently and in the future as the clean label component.

Anthony concluded, "Consumers will continue to seek clean label products, and this will put pressure on CPGs to change how they manufacture, market and sell savory products."

Regulatory issues aside, consumers' eating habits and behaviors are changing. Keeping up with the demand and changing trends is an exciting challenge that fuels creativity in savory flavors.

Warsow stated, "One of the main challenges that Bell Flavors & Fragrances faces is trying to keep up with the trends. Trends evolve very rapidly due to our new forms of communication. Food flavor trends can come up very quickly, and you must be ready for it when it happens."

In today's digital age, Teratanavat believes consumers are more educated, have access to information and travel: "What this means to the food industry is that many consumers are more knowledgeable and more willing to try new things, whether it is new cuisines or new flavors. This also means that consumers have higher expectations of what the taste should be and

challenges the food industry to develop products that offer an authentic taste experience."

Anthony noted, "Savory will continue to grow and change as the cultural influences expose us to new and wonderful flavors."

#### What's In Store?

Driven by a globalized society, access to information, shifting cultural demographics and changing eating habits, the savory category will continue to grow. Insects as food and cannabis cuisine are uncharted territory and may disrupt flavor innovation. To satisfy consumers' shifting demands, new complex flavors, unique applications, and flavor and taste modulation technology will be introduced.

"Savory flavors and combinations are going to be more popular, more creative and more daring," said Slovis.

Ethnic flavors will continue to inspire new products, offering creative opportunities and challenges for flavor suppliers, CPGs and the food service industry alike.

Garza and Diez de Medina said, "Complex and multidimensional flavors, such as ethnic and bold, will continue to grow as they offer a taste experience that is unique and interesting."

Graham agreed: "Ethnic flavors will cater to the segment of consumers who want to experience authentic, and often complex, flavor profiles. Examples include Asian sauces, exotic chili peppers, novel spice blends and fermented vegetables. This category is boosted by millennials' increased willingness to experience new cuisines and culinary trends. While many of these ethnic flavors will be introduced as limited-time offerings (LTOs), the desire is to find a profile that resonates with consumers on a long term basis."

Meanwhile, Teratanavat said, "We will see new and different flavor offerings that highlight unique cuisines and/or interesting bolder flavor combinations. The lines of traditional ethnic will blur and hybrids will become the new normal." Warsow feels similarly: "Authentic is not necessarily something that consumers require. We like to take elements from other cultures and make them our own."

The health and wellness trend will evolve, and flavor houses will be challenged to comply with regulatory requirements.

Teratanavat predicts that "health will remain a key concern for consumers, and companies will continue to invest in healthier alternatives and rely on new technologies to help them achieve the goal to offer a healthier product without compromising on taste."

Graham added, "The healthy category will continue to grow in importance, with a segment of consumers viewing this as an important purchase factor."

In conclusion, regardless of the category, Anthony said, "The fun part about being in the food industry is [that] there's always something new to explore: an ingredient, a technique or ethnic cuisine."

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