

Tasteology

TRENDS, PRODUCTS AND MORE FROM NEWLY WEDS FOODS

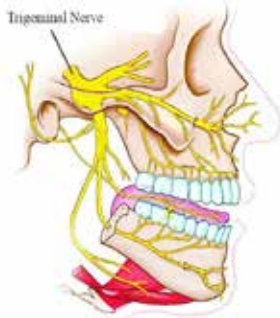
November 2016

CULINARY SPOTLIGHT

Trigeminal Sensations, Beyond the Five Basic Tastes

Have you ever wished that you weren't such a "basic taster"?

You know, the five basic tastes; sweet, salty, sour, bitter, and umami. Well, now is your chance to become more taste savvy. When we eat we recognize the five basic tastes, but what about all of those "other tastes" that cross our taste buds? Where do sensations such as cooling, astringency, and spiciness fit in? They are known as trigeminal sensations. These "other tastes" are triggers sent to the brain via the trigeminal nerve. When combined with olfactory and taste components, these trigeminal sensations can actually enrich the perception of food flavor more than we have previously realized. Trigeminal sensations are often associated with compounds found in certain foods; menthol for cooling is found in mint, spilanthol comes from a variety of plants, causing a tingling effect on the



tongue (think wine and green tea) and capsaicin in chilies is what gives them their signature spiciness.

One of the "cooler" new sensations making its mark on menus occurs when eating the

flowers of a Szechuan pepper plant. These tiny buds (aka "buzz buds") actually make your taste buds "hummmmm". As the body of research behind taste and sensory perception continues to grow, chefs are finding new ways they can use the idea of trigeminal

response to deepen the flavor of their food and elevate the dining experience for their guests. Newly Weds Foods is supporting this approach to taste enhancement with the development of Trigem Seasoning Blends. They are great on baked snacks and in a multitude of other applications. Contact your sales representative for more information.

Taking Sour to Sweetness... What Is The Miracle Berry

Can it be? A little berry powerhouse that can change a flavor of an off tasting food and make it palatable? Why yes! This is miraculin, otherwise known as "the miracle berry."

According to Mintel, despite the exciting science and story behind the miracle berry as a sugar replacement it has not achieved significant growth in commercial use. Contributing to this are some highly regulated restrictions on use. Currently, there are only four food products listed with it in Mintel's Global GNPD as the berry has been more often used in fine-dining restaurants to provide a "flavor-tripping" experience. Newly Weds Foods will continue to monitor application and growth of this unique ingredient and share our insights into the latest and greatest opportunities for this berry.



TRENDSSETTERS

It's All An Experience... An Eating Experience

POP, SPICY, CRUNCH, BURST, CHEWY, SMOOTH...OH MY!

Millennials have been helping to reshape the way food and drinks are now being delivered into all markets. Thanks to them growing up in the age of food shows, food trucks and Pinterest, they have had the opportunity to experience all varieties of foods at more manageable price points. According to the Hartman Group, eating occasions fall into three categories. There are instrumental occasions where eating is just because we have to. There are savoring occasions, where consumers are seeking higher quality and more sophistication through culinary driven food experiences involving flavor and texture. And, there are inspirational occasions. These represent the epicenter of emerging trends, highlighting small craft production like heirloom to molecular gastronomy.

Per the study from Hartman, savoring occasions are starting to make headway in our daily eating occasions. Out of the ten daily eating occasions recognized by Hartman, six are identified as being instrumental and four as savoring (40%!). It is anticipated that as consumers move towards more of a snacking orientation, there will be an increase in savoring occasions and the desire for foods that not only add unique flavor but a textural experience. From Greek Style yogurt with sriracha and pumpkin seeds to chicken strips enrobed with crispy Panko. Stay tuned...the food and drink industry is geared-up to WOW your senses.

The Five Basic Tastes

When someone asks you how something tastes, your answer could be “good” or “delicious.” But if you really want to get specific, that answer could be broken down in a number of ways: five in fact. There are five universally accepted basic tastes that stimulate and are perceived by our taste buds: sweet, salty, sour, bitter and umami. Let’s take a closer look at each of these tastes, and how they can help make your holiday recipes even more memorable.

Sweet

You probably have or know someone who has a “sweet tooth.” It has a nicer ring to it than sweet tongue, doesn’t it? Sweetness is often described as the pleasure taste, signaling the presence of sugar, which is a core source of energy and hence, desirable to the human body. It is no wonder that this is a taste that even babies gravitate to.

Furthermore, when used in a combination, sweet complements well with the other basic tastes. Adding sweetness such as a drizzle of sweet balsamic glaze to a traditionally salty vegetable dish like roasted brussel sprouts would take it to the next level.



Salty

The simplest taste receptor in the mouth is the sodium chloride receptor. Salt is a necessary component to the human diet and enhances the flavor of foods. However, the average American tends to consume way more than needed (about 2-3 times above the FDA’s recommended daily limit), and our palates adapt to crave more salt. Interestingly enough, when people cut back on salt in their diets, taste buds can adjust again and adapt to be satisfied with less.

As a flavor enhancer, adding salt to traditionally sweet dishes is necessary to amplify the sweet notes. A pinch of salt is core to most baked dessert recipes. Even if it is not listed in the ingredients, sprinkling some sea salt flakes or smoked salt over holiday ginger bread cookies brings out the sweetness of the sugar and enhances the ginger flavor.



Sour

Sourness is a taste that detects acidity. These taste buds detect hydrogen ions from organic acids found in foods. The mouth puckering sensation is common in citrus fruits such as lemons and oranges, as well as tamarind and some leafy greens. The sour taste can also be obtained from foods soured through fermentation such as sauerkraut and yogurt, or through the addition of vinegar.

Many salad dressings feature vinegar as a key ingredient, which is a perfect way to add sour notes. You could also try adding lemon or orange zest to vinegar or even cream based dressings. Or, simply zest the top of your salad to help drive this craveable flavor sensation.



Bitter

Bitter is the most sensitive of the five tastes. A large number of bitter compounds are known to be toxic, which is why many perceive bitter flavors to be unpleasant. Hundreds of substances, mostly found in plants, taste bitter. However, a little bitterness can make food more interesting and have become beloved, like the hoppy taste in beer. Furthermore, there are cases where some bitterness could be healthy. Antioxidants, which aid in metabolism, account for the bitter taste in dark chocolate and coffee.

Dark chocolate shavings on top of your favorite holiday dessert could be a great addition to create a fun bitter flavor party.



Umami

Umami is an appetitive taste, sometimes described as savory or meaty. It is the most recently identified and accepted of the basic tastes. In the early part of the 20th century, a Japanese chemist named Kikunae Ikeda attempted to identify this taste common to asparagus, tomatoes, cheese and meat. But, not one of the four well-known tastes could describe it adequately. What he pinpointed was the presence of glutamic acid, which he renamed “umami”, Japanese for “good flavor”. Though one of the core flavors of Eastern cuisine imparted by soy sauce and MSG (monosodium glutamate), it wasn’t accepted as a basic taste in the West until 1985.

Why not add some savory umami flavors to your traditional holiday stuffing recipe this year by adding mushrooms into the mix?



MARKET VIEW

Kokumi - The Sixth Taste?

For all our sophistication in the kitchen, the scientific understanding of how we taste food could still use some time in the oven. Dating back to ancient Greece and China, the sensation of taste has historically been described as the combination of a handful of distinct perceptions. Western food research has long been dominated by the four “basic tastes” of sweet, bitter, sour and salty.

Western science now recognizes the East’s umami (savory) as a basic taste. But even the age-old concept of basic tastes is starting to unravel, as current belief is that there is no accepted definition of basic taste, and that the rules are changing as we speak.

Our ability to sense the five accepted categories comes from receptors on our taste buds. These tiny sensory organs appear mostly on the tongue, the roof of the mouth and in the back of the throat. In the mouth itself, though food scientists continue to discover new receptors and new pathways for gustatory impressions to reach our brain, and there are some new taste sensations vying for a place at the table as a sixth basic taste.

The latest “sixth taste candidate,” kokumi, a taste impression identified in an amino acid that interacts with our tongue’s calcium receptors. Widely accepted in Japan since 2010, it’s beginning to gain traction in the Western hemisphere as well. It has been the subject of scientific inquiry in Japan since the 1980s, recently propagated by researchers from the same Japanese food company, Ajinomoto, who helped convince the taste world of the fifth basic taste, umami, a decade ago.

Best described as “rich” and “taste” or “mouthfulness” and “heartiness”; it is almost as much a feeling as a taste. This results in enhancement of flavors already in the mouth, providing a sensation of richness. Braised, aged or slow-cooked foods supposedly contain greater natural levels of kokumi, as do foods like garlic, onions, and scallops.

As a contender for “the sixth taste” it is ahead of other concepts, but the verdict is still out – for now it remains a concept in its infancy that is worth exploring.



RECIPES

Spiced Banana and Pumpkin Bread

Yield: 1 Loaf

Ingredients:

- ½ cup (1 stick) unsalted butter, at room temperature
- ¾ cup light brown sugar
- 2 eggs
- ½ cup roasted pumpkin puree
- 3 to 4 very ripe bananas, peeled and mashed
- 1 teaspoon vanilla extract
- 2 cups all-purpose flour
- 1 teaspoon baking soda
- 1 teaspoon salt
- ½ teaspoon baking powder
- ½ teaspoon ground cinnamon
- ¼ teaspoon ground ginger
- ¼ teaspoon ground cayenne
- ¼ teaspoon ground cardamom
- ¾ cup cashews

Method of Preparation:

1. Preheat oven to 350°F. Spray a 9x5 loaf pan with nonstick spray.
2. Using a stand mixer fitted with the paddle attachment, beat the butter and sugar until fluffy and slightly pale in color.
3. Add the eggs, one at a time, mixing well after each addition and scraping the bowl as needed. Add the pumpkin, bananas and vanilla extract and mix well at medium speed.
4. In a separate medium sized mixing bowl, combine the flour, baking soda, salt, baking powder, cinnamon, ginger, cayenne, and cardamom.
5. Slowly pour the dry ingredients into the wet ingredients over low speed until well combined. Add in the cashews and mix well.
6. Pour the mixture evenly into your prepared loaf pan and bake for 60 to 70 minutes or until a toothpick inserted in the center comes out clean. Allow to cool for about 10 to 15 minutes before removing from loaf pan and slicing.

Mexican Hot Chocolate Ice Cream

Yield: 6 Cups

Ingredients:

- 2 teaspoons ancho chile powder
- 2 cups whole milk
- 2 cups heavy cream
- 4 egg yolks
- 5 ounces dark chocolate chips, melted
- 14 ounces sweetened condensed milk
- 2 teaspoons vanilla extract
- 1 Tablespoon coffee liqueur

Method of Preparation:

1. Combine the milk and cream in a saucepan over medium heat
2. Temper in the egg yolks
3. Strain mixture into a bowl through a fine strainer
4. Combine ice cream base with melted chocolate, sweetened condensed milk, vanilla, and coffee liqueur.
5. Cool the mixture completely
6. Freeze in an ice cream freezer according to the manufacturer's directions. Scrape into a freezer container and freeze for several hours to firm.

Electric Old Fashioned

Yield: 1 Cocktail

Ingredients:

- 2 oz. bourbon
- ¼ oz. ginger Szechuan pepper flower (Buzz Buds) syrup*
- 2 dashes Angostura bitters
- 2 dash plum bitters
- 1 each orange curl

In a mixing glass with ice, add bourbon, then syrup, then bitters. Stir for approximately 30 seconds, and strain into a rocks glass with fresh ice. Garnish with orange curl.

*Syrup Preparation

- ½ cup water
 - ½ cup sugar
 - 1½ inch ginger root, crushed
 - 4 each Szechuan pepper flowers (Buzz Buds)
- In a small pot, bring water and sugar to boil over medium heat. Stir to dissolve sugar. Add ginger and Szechuan pepper flowers, then turn off heat. Set aside and allow to cool completely and then strain.

MARKET INSIGHT

The Evolution of Snacking

It's no surprise that snacking is taking over the traditional "three square meals a day" routine. Busy lifestyles, tight schedules and dietary restrictions all lend themselves to eating on the go. Snacking has evolved to not only satiate the hunger pangs and give a burst of energy to keep moving but, to give us an indulgent and memorable reward when need be.

Newly Weds Foods recognizes the opportunities in this snacking trend and has developed market reviews and actionable approaches to take advantage of them. This library of information covers all snacks, from salty, to sweet, to savory. Perhaps you are working on a new product to add to your portfolio, or maybe you are reworking an existing line. See how Newly Weds Foods can assist you with strong and relevant data to support a rationalized and strategic direction.

Please contact your Newly Weds Foods sales representative to inquire about this valuable resource. Other categories covered in our library consist of Global BBQ, Chicken, Red Meat, Seafood and Prepared Foods.

Szechuan Lemonade

Yield: ½ Gallon

Ingredients:

- 1 cup fresh squeezed lemon juice
- 1 cup fresh squeezed grapefruit juice
- 4 cups water
- 1 cup superfine sugar
- 8 each Szechuan pepper flowers (Buzz Buds), finely chopped

Method of Preparation:

In a large pitcher mix all of the ingredients and let flavors marry overnight. Serve in a large glass with ice



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