



# SupplySide® Food & Beverage Journal

supplysidefbj.com

Vol. 6, No. 11 | December 2025



Clean slate, **full plate:**  
The fearless future of food

5  
TRENDS  
2025  
CONCEPTS

3

**Viewpoint: Industry events shape tomorrow's food and beverage innovation**

*by Audarshia Townsend*

From honoring the best of over 1,000 groundbreaking NEXTY Award entries to revealing the hottest advances shaping the coming year and beyond, industry conferences have become trend prediction powerhouses.

4

**Tipping point: Building a more resilient food system**

*by Kimberly J. Decker*

While supply chains crumble and costs spiral, visionary companies are fighting back with everything from cell-cultured coffee to drought-resistant perennial grains.

8

**Clean label 3.0: The new rules of transparency in a bioengineered era**

*by Nick Collias*

The old clean-label playbook is dead. Discover the six new rules that help progressive brands thread the needle between technological advancement and consumer trust.

12

**The Game Changers: 10 better-for-you products prove that taste and health can coexist in 2025**

*by Audarshia Townsend, Scott Miller and Heather Carter*

In a marketplace drowning in marketing hype, these game-changing products cut through the noise with solid science and genuine innovation.

17

**Taste meets tech: How AI is reshaping flavor innovation**

*by Melissa Kvidahl Reilly*

AI still can't tell if something actually tastes good. Discover how the smartest companies are using artificial intelligence to amplify human creativity, not replace it.

Copyright © 2025 Informa Markets. All rights reserved. The publisher reserves the right to accept or reject any advertising or editorial material. Advertisers, and/or their agents, assume the responsibility for all content of published advertisements and assume responsibility for any claims against the publisher based on the advertisement. Editorial contributors assume responsibility for their published works and assume responsibility for any claims against the publisher based on the published work. Editorial content may not necessarily reflect the views of the publisher. Materials contained on this site may not be reproduced, modified, distributed, republished or hosted (either directly or by linking) without our prior written permission. You may not alter or remove any trademark, copyright or other notice from copies of content. You may, however, download material from the site (one machine readable copy and one print copy per page) for your personal, noncommercial use only. We reserve all rights in and title to all material downloaded. All items submitted to SupplySide Food and Beverage Journal become the sole property of Informa Markets.

## Industry events shape tomorrow's food and beverage innovation

**E**ach January brings a familiar surge of optimism to our industry, and 2025 delivered spectacularly on innovation's promise. As the New Hope and SupplySide editorial teams dove into judging more than 1,000 groundbreaking products for the year's NEXTY Awards – spanning functional beverages, reimaged snacks and next-generation dairy alternatives – I was struck by a powerful realization: We weren't just evaluating products, we were witnessing the future unfold.

The NEXTY judging experience has become our industry's most reliable crystal ball, setting expectations for what we'll discover on Natural Products Expo West's show floors. But here's what many developers miss: The real magic happens in the constellation of events that follow throughout the year.

**Industry conferences have evolved into trend prediction powerhouses.** For example, the Black Women in Food Summit showcased culturally authentic innovations that mainstream brands scramble to understand. IFT (Institute of Food Technologists) First Chicago – which focuses on food science and innovation – revealed the scientific breakthroughs that will revolutionize processing techniques; while the natural products industry's Newtopia Now captured the spirit of emerging brands at retail. Finally, the annual ingredient-focused SupplySide Global unveiled the innovations that will enable future breakthrough formulations. These events don't just reflect trends; they create them.

Smart developers treat these gatherings as strategic intelligence operations. The conversations in hallway corners sometimes prove more valuable than keynote presentations. And the supplier showcases hint at which ingredients may face supply constraints or price volatility.

As we inch toward 2026, this year-end digital magazine aims to prepare you for the years ahead. Kim Decker's lead feature investigates how climate change is driving innovation in ingredient sourcing and formulation strategies. Nick Collias takes on the clean-label movement and its evolution to address consumer demands for transparency. With AI on everyone's minds, Melissa Kvidahl Reilly uncovers the latest news on how developers are using the technology for flavor creation, ingredient optimization and consumer preference prediction. Finally, the FBJ editorial team selects 10 spectacular new products of the year for The Game Changers column.

Be well. Eat *and* drink well.



Audarshia Townsend  
CONTENT DIRECTOR  
[audarshia.townsend@informa.com](mailto:audarshia.townsend@informa.com)

 [@iamaudarshia](https://www.instagram.com/iamaudarshia)

 [@audarshia](https://www.linkedin.com/company/audarshia)

## Tipping point: Building a more resilient food system

by Kimberly J. Decker

**T**he climate-change community has left an indelible mark on discussions around environmental survival, putting phrases like “greenhouse effect,” “carbon footprint,” “climate justice” and the quietly ominous “tipping point” into common currency.

But it wasn't until he attended a conference on regenerative agriculture earlier this year that Colin Cureton, director of commercialization, adoption and scaling at University of Minnesota's Forever Green Initiative, encountered this new coinage: “planetary solvency.”

What stood out to Cureton was that the phrase wasn't floated by climate-change activists, but rather, he recalled, “by the actuaries!”

Which makes sense: “Planetary solvency,” Cureton explained, “is the idea that climate change poses enough risk to throw a major wrench into the economy writ large.”

And given both its [estimated](#) 10% contribution to global GDP (gross domestic product) and its dependence on the planet as a source of ingredients, the food economy sits squarely in that wrench's path.

The good news, Cureton insisted, is that “we have time to act.” And players throughout the industry are building resiliency into a food system that, all else being equal, might be headed toward its own tipping point.



### The cost of cacao and coffee

Signs of that peril – and climate's role in it – are everywhere. Consider the cost of cacao.

Keith Bearden, CEO of Alter Eco Foods, noted the West African nations of Ivory Coast and Ghana produce 60% to 70% of the world's cacao. “But over the last five or six years, yields from those plantations have been going down because of climate change,” he claimed.

Extreme drought and rain have parched and flooded trees, opening the door to pests, fungi and diseases. As a result, Bearden claimed, Africa's yields for the 2023-2024 crop season fell by about 30% relative to previous years, representing a 20% decline in the global supply.

**Extreme drought and rain** have parched and flooded trees, opening the door to pests, fungi and diseases.

“When that happened,” Bearden added, “prices went from \$3,800 a metric ton to over \$12,000 a metric ton in a matter of four months.”

Ami Herman, CEO of Coffeesai (a subsidiary of Israeli biotechnology company Pluri Inc.), mentioned similar concerns in other parts of the world. For example, in Brazil – home to 38% of the global coffee supply – wildfires and flooding dealt a blow to coffee output even as droughts in Vietnam precipitated a 20% drop in its Robusta coffee species harvests.

“Coffee Intelligence [reports](#) that Arabica coffee prices surged 70% in 2024, driven by climate-induced supply disruptions,” he said. “And [according to](#) Trading Economics, prices to date in 2025 peaked at \$4.40 per pound in February, marking a 70% increase year over year, before stabilizing around \$3.99 per pound in November – still up over 54% compared to the same time last year.”

### Going granular

Similar stories are unfolding with respect to everything from vanilla and rice to corn, wheat and soybeans. And they have the industry sweating.

Melissa Waddell, a copywriter and editor with the nonprofit Non-GMO (genetically modified organism) Project, suggested, “There are differing schools of thought about how to approach this – where to put the available attention and resources, and to what end.”

One such approach is “quite granular and extractive,” she said, leveraging technologies like genetic modification to stay ahead of climate change.

Consider the development of Bioceres Crop Solutions’ transgenic HB4 wheat. The drought-tolerant strain claims to offer stable yields even amid climate pressures; and in 2024, it received approval for domestic cultivation courtesy of USDA’s (U.S. Department of Agriculture’s) Animal and Plant Health Inspection Service (APHIS). “Our concern with this approach,” Waddell maintained, “is that genetic modification’s effectiveness at adapting or mitigating the climate crisis is far from certain.”

### Speeding crops into commerce

Agree or disagree, innovators are tapping other advanced technologies in a bid to breed climate-resilient crops before it’s too late.





**Vertical farming** is proving ‘a great fit’ for producing high-value, short-cycle crops – such as leafy greens – that can feed a large base of consumers near the site of production.

---

Kristin Gray, research and development (R&D) director for Cargill’s Crop Innovation Center, explained, “Bringing new crops to full commercialization can take years. But we can use the power of modern molecular biology to make traditional – that is, non-GMO – plant breeding smarter, faster and more efficient. Technologies like speed breeding, genomics, bioinformatics and machine learning help the breeding process go as quickly as possible.”

Case in point: Cell biology allows companies to use plant tissue cultures to speed the creation of new genetics. Gray maintained, “We can regenerate a whole new plant from a single pollen grain.” In so doing, innovators may be able to subtract as much as a year from growing time.

### Inside line

Vertical farming is proving “a great fit” for producing high-value, short-cycle crops – such as leafy greens – that can feed a large base of consumers near the site of production, Gray continued.

“Advances in automation help decrease labor costs while precisely controlled production systems use minimal water – often aeroponics

– and just the right nutrients to maximize yields,” she said. “The next major breakthrough will come when we can reduce power requirements, making the model viable for even broader adoption.”

Companies like Coffeesai are working to future-proof coffee production by bringing it indoors, where highly controlled environments and the use of cell-culture technology bypass climate volatility. Herman pointed to several key advantages: “no droughts, no deforestation, no crop failures.”

While regulatory hurdles and technical challenges to commercial scale-up remain, “We believe that within a few short years, climate-resilient coffee won’t be a novelty,” Herman declared. “It’ll be a necessity.”

### Enter the ‘poly-solution’

Waddell subscribes to another school of thought around efforts to adapt ingredients to climate reality – namely, one that “looks at the issues from a living-systems perspective in which farmers and holders of traditional indigenous knowledge work with researchers to develop strategies,” she said.



## Ingredient focus

This all sounds familiar to Cureton. “If climate change is indeed a ‘poly-crisis,’ meaning many challenges all at once,” he said, “think of regenerative agriculture as a poly-solution. This is exactly the focus of the University of Minnesota Forever Green Initiative.”

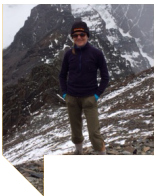
The organization is developing novel perennial and winter annual crops that “bake in” practices like cover-cropping and maintaining a living root system in the soil year-round. “Think of this like renewable energy: As with solar and wind, we’re developing a new set of sustainable tools in agriculture that can solve fundamental problems in a basic sector of the economy while still delivering society the food and other products it needs,” he stated.

Forever Green’s efforts have already scored a commercial hit with Kernza perennial grain, which not only sequesters carbon, builds soil health and stands up to drought, Cureton said, but “is out there in the market” in products from brands like General Mills’ Cascadian Farms and Patagonia Provisions.

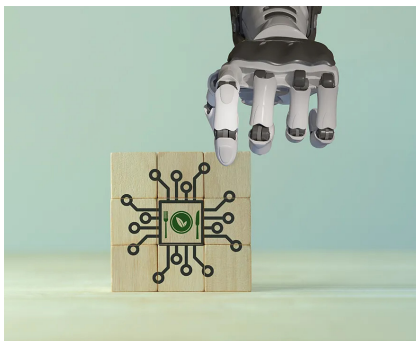
### Strategic farming

Adam Kotin, managing director of the Soil & Climate Initiative – a nonprofit that helps farmers put regenerative principles into practice – should be proud about that.

“A lot of the farmers in our regenerative agriculture program join specifically because they view it as a resiliency play,” he said. “By adding new crops to their growing rotations, if one fails, they still have others to sell. And diverse rotations have the added benefit of increasing soil health, which makes the land more capable of producing a marketable yield during weather shocks. It’s a win-win.” ■



Kimberly J. Decker is a Bay Area food writer who has worked in product development for the frozen sector and written about food, nutrition and the culinary arts. Reach her at [kim@decker.net](mailto:kim@decker.net).



## read

### Brands turn to AI tools as state bans on food additives increase

Food and beverage companies are using artificial intelligence to help identify restricted ingredients, streamline reformulation processes and accelerate product development.

## Clean label 3.0: The new rules of transparency in a bioengineered era

by Nick Collias

As bioengineered ingredients become more sophisticated, brands must walk a tightrope between natural appeal and technological innovation. The challenge is staying true to the evolving ideals behind a “clean” label.

**H**ans Eisenbeis of the Non-GMO Project warned, “82% of U.S. adults believe food companies specifically use ultra-processing to maximize profits at the expense of public health.” Recent polling by this nonprofit found that food manufacturers ranked near the top of highly distrusted entities, right alongside government regulators, social influencers and AI (artificial intelligence).

Sound like a tough environment to tell the story of an innovative new product? It sure is. But that skepticism is the backdrop for the new era of clean label. Not having X or being sure to include Y isn't enough anymore. Brands must deliver products that feel safe, nutritious, simple and sustainable, even as those products rely on precision fermentation, AI-driven ingredient discovery and cultivated ingredients.

Regardless of whether a brand is considering bioengineered ingredients or has



sworn them off entirely, the conversation is vital. The following six rules can help food developers, marketers and R&D (research and development) teams thread the needle between natural appeal and technological advancement.

### Rule 1: Ask, ‘Does it help me tell a legitimate sustainability story?’

For many consumers, “bioengineered” still conjures images of mysterious chemicals and resource-gobbling processing methods. But that's not always the case. And knowing where one's ingredients stand is critical to telling a clean-label story that resonates with consumers.

Jasmin Hume, Ph.D., insisted, “Sustainability has become inextricably linked with the



**Consumers increasingly expect brands to demonstrate environmental responsibility throughout the supply chain.**

clean-label ethos.” The founder of the AI-powered ingredient developer Shiru, continued, “Consumers increasingly expect brands to demonstrate environmental responsibility throughout the supply chain. This shift has created a significant opportunity for technologies like [Shiru’s], which can produce highly functional, nature-identical ingredients with a demonstrably lower environmental footprint than traditional animal agriculture or even many plant-based sources.”

### Rule 2: Focus on nutrition

In an era where consumers care about sustainability and sourcing, nutrition remains the most personal entry point for clean-label communication. Especially when the ingredient’s backstory is hard to explain.

Robin Simsa, CEO of fungi-based seafood company Revo Foods, related, “We really focus on the natural origin of our main ingredient.

Mycoprotein is a recognizable ingredient that is perceived as very healthy, natural and nonprocessed by consumers. Because in the end, what consumers often want is protein, more than an exact meat replica.”

Jody Kirchner, assistant director of market insights at the Good Food Institute (GFI), agreed that nutrition can be the most compelling way to make an introduction. “Plant-based meat tends to offer a stronger nutritional profile and healthier outcomes than both conventional meat and typical ‘ultra-processed’ foods,” she suggested. “Messaging that emphasizes high fiber, zero cholesterol and high protein – alongside taste and familiarity – can help align products with consumer health priorities.”

### Rule 3: Know when to stop explaining

Technological transparency is a noble goal. But for many consumers, less is more.

Kirchner suggested, “Phrases like ‘cultivated’ perform better than those that are more ‘sciencey,’ like ‘cells.’ It can be effective to bookend process descriptions with messages that highlight cultivated meat’s familiarity and benefits.”

GFI’s research shows that brief, benefit-driven messaging resonates best, especially when it cues taste, sustainability or animal welfare. Brands can lean toward “tastes like meat,”





“antibiotic-free” or “environmentally friendly,” rather than diving deep into fermentation pathways or cell culture steps.

Importantly, a brand doesn't have to pretend its ingredient was made on a farm if it wasn't. But the brand also doesn't need to walk consumers through its lab, either.

#### **Rule 4: Look for functional swaps over flashy headlines**

Cultivated proteins and other high-profile innovations tend to dominate the conversation. But some of the biggest clean-label opportunities lie in the quiet, behind-the-scenes ingredients that literally hold together food.

Hume pointed to emulsifiers, which she called “the unsung heroes of food science.” But legacy emulsifiers often come with long,

synthetic-sounding names that don't sit well with consumers.

“Emulsifiers that the industry has relied upon for decades, which are not seen as ‘clean label,’ are being aggressively phased out by many brands right now,” she said. “The challenge is replacing highly effective synthetic emulsifiers and stabilizers with natural alternatives that can provide the same long-term shelf stability and product integrity.” This has created a race to produce functional alternatives like Shiru's uPro, a plant-derived ingredient designed to stabilize liquid oils without synthetic additives.

These swaps may never make it to the front of the package. But they can clean up ingredient decks in noticeable, consumer-friendly ways.

#### **Rule 5: When possible, make use of third-party certifications**

Consumers may never know exactly how a brand's proverbial sausage is made – and they may never need to. But they likely prefer that someone somewhere knows exactly what went into it. That's where certifications excel.

Eisenbeis said credible, third-party certifiers play a critical role, especially as “companies can't hide behind their marketing departments.” He emphasized that participating companies are required to reveal all their processes and recipes to an independent certifier, and that businesses typically are required to continue sharing that information to keep their certifications current.



## read

### **Survey reveals what parents seek in kids' snacks**

Parents are demanding healthier, more sustainable snack options for their kids, creating various opportunities for brands to innovate, according to a new survey by Nextin Research.



## Consumers view **greenwashing** as ‘the **venial sin** of the food marketplace.’

Certifications like Regenerative Organic, Upcycled and Fair Trade remain crucial callbacks to the established legacy of clean label, to what Eisenbeis called “a more holistic signal of what is clean, good, sustainable and worthy.” They’re also a barrier against greenwashing, which he said consumers increasingly view as “the venial sin of the food marketplace,” particularly in the technological age.

### **Rule 6: Expect everything to change**

Even if a brand feels comfortable with where it currently sits on the natural/technological divide, the regulatory and consumer landscape is shifting underfoot.

As SupplySide Food & Beverage Journal’s Scott Miller recently [reported](#), a ruling out of the 9th U.S. Circuit Court of Appeals concluded that USDA’s (U.S. Department of Agriculture’s) labeling standards for bioengineered foods may not go far enough, and QR codes alone don’t satisfy federal disclosure requirements. This could bring a radical reevaluation of labeling, sourcing and defining “bioengineered.”

Meanwhile, ingredient companies that once quietly dominated the back end of food manufacturing are now racing to modernize

their portfolios. Hume claimed, “We’re increasingly being approached by legacy ingredient companies whose portfolios are not ‘clean label,’ seeking to access or acquire the technologies we’ve developed to renovate their offerings.”

She added, “This tells us everything we need to know – the entire industry is facing this evolution, and those who don’t adapt will be left behind.” ■

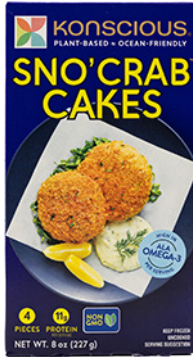


Nick Collias is a writer and editor with over a decade of experience working in the health and fitness industry. He was the host of the Bodybuilding.com Podcast and has worked as a longform print and online journalist, as well as a book author, ghostwriter and editor.

# The Game Changers

Here's a spotlight on 10 top brands leading the industry with successful concepts, mindful execution.

Konscious Foods



Cambio Roasters



Ulmo Honey



Niramaya Foods



Alec's Ice Cream



Milton's



SkinnyDipped



Selym Snacks



Desbry



FamBam Foods

IN THIS ISSUE

Ingredient focus p.4

Technology impact p.17

Table of contents p.2

# 10 better-for-you products prove that **taste** and **health** can coexist in 2025

by Audarshia Townsend,  
Scott Miller and Heather Carter

Discover the products of the year that are genuinely reshaping the industry, as selected by SupplySide Food & Beverage Journal's editorial team.

In today's competitive retail environment, marketing hype can often become an unbreachable fortress of noise, obscuring a product's safety, effectiveness and even taste. With more product lines going "functional" – offering the potential to support unique health benefits – navigating what seems good compared to what really is good can be tricky.

"Responsible companies can counter this by leading with transparency and nutritional and scientific rigor," Andrew Noyes, principal at Noisemaker Consulting and communications advisor at Savor, said. "Credible players in this space are those who invest in

third-party validation, communicate their research and resist the temptation to make their products sound like miracle solutions. In an industry where trust is currency, honesty about limitations can be just as powerful as highlighting benefits."

Many brands are cutting through the noise with solid science and innovative products, and this Game Changers highlights 10 of the best released in 2025, with selections from SupplySide Food & Beverage Journal Content Director Audarshia Townsend, Senior Staff Writer Scott Miller and Associate Editor Heather Carter.



## **Alec's Ice Cream Culture Cup**

**Founder:** Alec Jaffe

**The story:** Growing up exploring his relatives' sustainable farmland shaped Jaffe's understanding of quality ingredients and environmental responsibility. Years later, as an adult browsing the freezer aisle, he felt uninspired by existing options and knew the industry could do better. This realization sparked Jaffe's mission to create Alec's Ice Cream in 2021. He was committed to sourcing the finest ingredients, resulting in what he calls "the first-ever regenerative organic ice cream." In early 2025, the brand introduced its Culture Cup line.

**Why it's a game changer:** Culture Cup represents a new chapter for the brand: single-serve novelty cups packed with prebiotics and probiotics for gut health. Made with grass-fed A2 dairy and organic, regeneratively farmed ingredients, each cup features creamy probiotic ice cream topped with a signature chocolate shell. The product offers about half the calories of traditional pints per serving while maintaining indulgent flavor. On meeting consumer expectations, Jaffe [told](#) Dairy Reporter in August: "People try better-for-you products and almost expect them to taste not as good. We were able to deliver a really wowing flavor and sensory experience that just won people over." -A.T.

---



## **Cambio Roasters special dark roast coffee**

**Founder:** Kevin Hartley

**The story:** The coolest part of this organic, small-batch coffee is the aluminum packaging. "Plastic K-cups have two key problems," Hartley said. First he pointed to "the oxygen transfer rate, which lets in way too much oxygen for the coffee to retain its majestic qualities for very long. Problem two is that only 9% of plastics end up getting recycled."

**Why it's a game changer:** Aluminum is better at preserving coffee and being recycled, but it's also harder to scale-up with a novel packaging design. While designing this new K-cup from scratch, Cambio overcame various challenges – from making the aluminum stretch without ripping, to attaching a paper filter to an aluminum substrate in a tenth of a second. -S.M.



## Desbry Malanga con Limon Chips

**Founder:** William Pardo

**The story:** Ever tried *Xanthosoma sagittifolium*, aka malanga? This root vegetable is traditionally found in the cuisines of South America, with some [research](#) stating that culinary uses for these starchy tubers go back as far as the Mayans.

**Why it's a game changer:** These chips, crafted from just three to four fresh ingredients, are naturally rich in [flavonoids, protein, fiber and other nutrients](#). They also balance tart lime with a salty, earthy crunch. Malanga was traditionally used as a medicinal food for infant development and gastritis; it's also [shown](#) to have different impacts on the gut microbiome than potatoes, with malanga contributing greater biodiversity of microflora and bioavailability of nutrients. -S.M.

---



## FamBam Foods Caulitos

**Founders:** Joey Rosa, Thai Lan Tran and Brian Rosa

**The story:** With more than two decades of experience as a designer and creative director for CPGs, Joey utilized his expertise to launch the gluten-free, non-GMO (genetically modified organism), better-for-you snack brands CauliPuffs and Caulitos. Debuting in January 2025 after three years of development, Caulitos offers a family-friendly vegan option (such as Dairy-Free Nacho) among “healthier” chip alternatives.

**Why it's a game changer:** Caulitos builds on the brand's dedication to crafting clean-label, baked-not-fried, plant-forward snacks. “Our family loves lentils, and we realized it was an ingredient missing from CauliPuffs,” Joey explained of the tri-ingredient blend, featuring lentils, rice and cauliflower. “While CauliPuffs is more mainstream and accessible, Caulitos was designed to be a more elevated snacking experience.” With an innovative three-dimensional, triangular puffed format, Joey believes these “vegan chips” are going to be “a real category innovator.” – H.C.



## Konscious Foods Sno' Crab Cakes

**Founder:** Yves Potvin

**The story:** As a longtime plant-based food advocate, classically trained chef, and founder of the plant-based meat brands Gardein and Yves Veggie Cuisine (both of which he has since sold), Potvin launched Konscious Foods in 2020 to build on his passion for sustainable, plant-based food products. Using high-quality, clean ingredients, the Canadian-based brand claims to have launched the world's first plant-based sushi rolls, onigiri, poke bowls and seafood products.

**Why it's a game changer:** Made using a proprietary plant-based protein blend comprised of wheat gluten, lemna (aka duckweed) leaf protein, soy protein isolate and pea protein, the vegan crab cakes also feature konjac (*Amorphophallus konjac*), a root vegetable that contributes fiber, and has also shown the potential to [positively impact](#) cholesterol markers and improve risk factors related to [type 2 diabetes](#) and [obesity](#).

With 11 g of protein per two-piece serving, Sno' Crab Cakes are the latest additions to the company's plant-based offerings, which Potvin believes are key to a circular economy. – H.C.

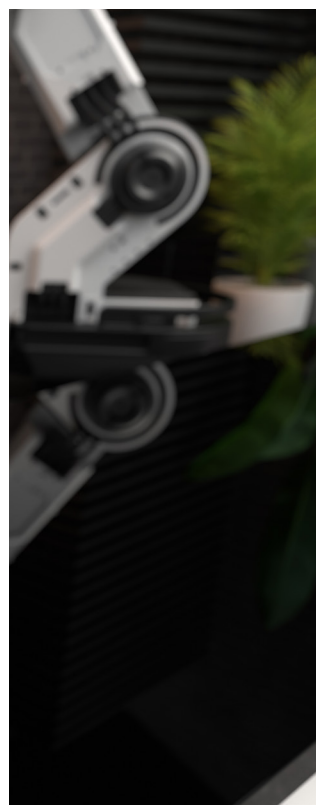
*Check out the rest of the list of game-changing brands, on page 20.*



## read

### TikTok, nostalgia, sustainability shape consumer preferences for food and beverage products

Younger consumers prioritize sustainability and transparency in ingredient sourcing. That was a major takeaway from a SupplySide session in Las Vegas.



## Taste meets tech: How AI is reshaping flavor innovation

by Melissa Kvidahl Reilly

In 2026, artificial intelligence will move from experimental to essential, transforming how the industry creates, tests and tastes.

**T**raditional flavor creation is both an art and a science. “It starts with defining the target profile, then selecting from thousands of possible materials to achieve that vision,” Larisa Campbell, manager of research and innovation at supplier Allen Flavors Inc., explained. “Each compound’s concentration and ratio are fine-tuned through iterative sensory evaluations until the flavor meets the target profile.” Along the way, flavorists must consider factors such as regulatory, cost, manufacturing and stability requirements. Susan Trapp, Terpedia.com – an online resource center about terpenes – co-founder and CEO, said of the process, “It works, but it’s

slow, expensive and dependent on accumulated intuition.”

As flavor houses race to keep pace with consumer trends in an increasingly competitive marketplace, many are turning to artificial intelligence to accelerate innovation. Right now, speed is AI’s greatest advantage. The technology can rapidly analyze emerging flavor trends and identify white space in the market – work that once required extensive, time-consuming, manual research. Trapp noted AI can also fast-track flavor development by suggesting promising starting formulas, flagging potential off-notes and predicting shelf-life issues before a single batch is mixed.



One of AI's **key advantages** is the ability to process **massive datasets** with exceptional speed and accuracy.

But it doesn't replace the human element. "Instead of replacing the flavorist, AI functions as an intelligent first-pass filter or screen that narrows the test list and lets experts focus on refinement," she added.

### The current landscape

Currently, AI's greatest potential lies in database development and management, allowing flavor houses and brands to transform static ingredient libraries into dynamic, searchable systems. One of AI's key advantages is the ability to process massive datasets with exceptional speed and accuracy – a task that can challenge even the most skilled humans. The more data the system receives, the smarter and more precise its outputs become. "By connecting chemical structure, sensory notes, stability data and regulatory information in one environment, formulators can instantly query, for example, 'Show citrus top-notes that remain stable through pasteurization under a certain price per kilogram,'" Trapp suggested. "The result is faster knowledge transfer, fewer formulation blind spots and a stronger foundation for innovation."

In this way, AI can minimize trial-and-error cycles by narrowing viable compounds, predicting starting ratios or concentrations, and suggesting adjustments based on performance or sensory feedback. It can also enhance quality control (QC) through anomaly or compliance detection. The result, Trapp said, is "faster time to market, lower raw material waste, and measurable returns on investment within the first production cycle."

AI can also rapidly identify patterns across regions and demographics to uncover market trends. Still, Trapp pointed out, it's not a crystal ball. "Predictive models can suggest the probability that a new concept will outperform current favorites, but they are best viewed as directional tools," she said. "Used responsibly, these systems can help localize flavor launches and reduce costly misfires, while keeping final creative judgment in human hands."

The big question on everyone's mind is whether AI can predict flavor profiles and ensure good taste. The answer is yes and no. Modern models trained on large datasets of flavor compounds can map chemical compositions against sensory descriptors (such as citrus or herbal), improving efficiency

## Start **small**, but start **smart**.

and reducing the number of test formulas required. That said, AI still can't replicate subjective human preferences. Campbell elaborated, "AI can analyze historical data for preferences based on regions and demographics, but only sensory panels can validate emotional appeal and real-world acceptance." Trapp added that validation remains essential, and the most effective workflows will use a hybrid approach – leveraging AI to propose high-probability candidates, then relying on a small human panel to screen them. The resulting data can then be fed back into the model for further refinement.

### AI in 2026

AI is here to stay – poised to become a standard step in every stage of flavor development, from ideation and formulation to QC and manufacturing. Campbell expects to see more technologies that advance the way AI "tastes" and "smells," including electronic amplification systems and molecular modeling platforms that predict flavor interactions. "I foresee a surge in advanced sensory prediction models that combine chemical and consumer data to simulate sensory response," she stated. The year 2026 will also mark a turning point, as AI adoption expands rapidly among midsize companies and market proliferation accelerates.

Campbell's advice? "Start small, but start smart," she recommended. Choose one bottleneck in the current process and pilot AI there. It often makes sense to begin with proprietary chemical, sensory and sales data organization and accessibility. Trapp concurred, "This is the foundation of any predictive model's competitive moat."

Finally, Campbell urged involving both the creative and technical teams and validating constantly. "Companies that succeed will be those that use technology to amplify human insight," she advised, "not replace it." ■



[Melissa Kvidahl Reilly](#) is a freelance writer and editor with 10 years of experience covering news and trends in the natural, organic and supplement markets. She lives and works in New Jersey.



## **Milton's Everything Protein Crackers**

**Founders:** Barry Robbins and Dave Levy

**The story:** Milton's Protein Crackers have mastered an irresistible crunch while offering 10 g of protein per 33 g serving.

"From the start, our team set out to create a high-protein snack free from soy and whey without the chalky texture or unpleasant aftertaste often associated with other high-protein products," Simon Kyne, VP of innovation and quality at Milton's, explained.

**Why it's a game changer:** Milton's paired unique flavors with a proprietary protein blend, which combines fava, rice, sunflower and pea proteins into a complete amino acid profile.

"There are two primary categories of flavors [in high-protein snacks] – sweet, like cookie dough and peanut butter, and more indulgent, like buffalo and nacho cheese," Kyne said. "We leveraged what we know about consumer preferences ... to create varieties that would inspire consumers to venture out of their comfort zone and try new things." -S.M.

---



## **Niramaya Foods' Indian-inspired 'naan' pretzels**

**Founder:** Mehek Khara

**The story:** Khara [launched](#) the "naan" pretzel line at Natural Products Expo West last spring as the perfect accompaniment for her Indian-inspired dips in flavors like Sweet Potato Bhaji and Tandoori Masala. The pretzels are "top nine" allergen free, with varieties ranging from Himalayan Pink Salt to Sweet Jalebi. Khara developed the pretzels because she wanted a snack that was less likely to aggravate her autoimmune condition, which she explained during our exclusive [interview](#) at the show.

**Why it's a game changer:** The pretzels are low in sodium (55 mg) with rich Indian flavors like chutney, tandoori and saffron. Made using avocado oil instead of regular cooking oils, they offer potentially beneficial monounsaturated fats that may positively [impact](#) some markers of inflammation. Khara maintained some avocado oil "is not processed as much as seed oils and it's good for your health." The oil enhances flavor while helping spices stick properly, ensuring consistent taste in every bite. -A.T.



## **Selym Snacks Superfood Granola**

**Founder:** Tawana Miller

**The story:** When Miller received her son Myles' autism diagnosis alongside news of his dairy sensitivities, she didn't just adapt ... she innovated. It led her to create Selym Snacks, a functional food brand with a unique approach to clean-label, allergen-free snacking. Miller launched a granola line this fall – with the help of Myles as her eager sous chef.

**Why it's a game changer:** Selym Snacks' flagship granola is a carefully formulated functional food that incorporates trending superfoods with proven health benefits. Her formulation includes cacao ([providing](#) antioxidants and [natural mood enhancement](#)), cardamom (offering [digestive support](#) and [anti-inflammatory properties](#)), chia seeds ([delivering](#) omega-3 fatty acids and fiber), hemp seeds, sunflower seeds, pumpkin seeds ([contributing](#) protein and essential minerals), and a dash of cinnamon and ginger (adding natural flavor complexity while [supporting immune function](#)). -A.T.

---



## **SkinnyDipped Dark Chocolate Coconut Almond Bites**

**Founders:** Valerie Griffith, Breezy Griffith, Lizzie Resta, Chrissy Haller

**The story:** After a close family friend passed away from sarcoma at only 18 years old, mother-and-daughter Val and Breezy realized they wanted to spend more time together, so they started a business. Together with Breezy's two best friends Lizzie and Chrissy, they spent years in the kitchen crafting their flagship product, SkinnyDipped Almonds, which offer consumers indulgent treats without compromising health goals.

**Why it's a game changer:** A dozen years after its founding, the female-powered company rebranded and introduced an array of new products, including almond butters, topless peanut butter cups and other nut-forward snacks. SkinnyDipped's Dark Chocolate Coconut Almond Bites – a healthier take on an Almond Joy – have only 3 g of sugar and feature chicory root fiber, a prebiotic fiber shown to [support digestive health and enhance calcium absorption](#). The formulation also uses tapioca syrup, agave syrup and maple sugar instead of traditional high-glycemic sweeteners. – H.C.



## Ulmo Honey

**Founder:** Tony Pilato

**The story:** All ulmo (*Eucryphia cordifolia*) honey comes from flowering trees of the same name native to Chilean Patagonia, but according to Pilato, only his branded Ulmo Honey almost completely comes from the same group of trees.

“For honey to be considered monofloral, it has to have at least 45% of a single nectar,” he said. “Ours is 97%, and there’s no other honey of this quality on the market.”

**Why it’s a game changer for formulators:** The London Honey Awards agreed that the honey is something special, which is why the product [earned gold](#) as a 2025 Honey Star.

“You get to taste the specific ulmo tree,” Pilato explained. “There’s no blends, so it’s very unique in that sense for people who appreciate the flavor. And also, for the health benefits, there’s over 30 years of [research](#) on ulmo, the nectar and its benefits.”

He’s talking about the work of [Gloria Montenegro Rizzardini](#), a researcher and botanist who discovered the high antibacterial properties of ulmo honey. -S.M. ■



  
**SupplySide®**  
**Food &  
Beverage  
Journal**

Contact us here

SupplySide Food & Beverage Journal leads CPG brands from ideation through manufacturing, supporting the development of clean label, natural and healthy food and beverage products. SupplySide Food & Beverage Journal provides in-depth data and analysis of the markets and is the source for the latest on ingredients, formulation, supply chain and regulatory issues affecting product innovation. As an official content provider for SupplySide, SupplySide Food & Beverage Journal connects ingredient buyers and suppliers with executives across the health and nutrition marketplace.

 **informa**markets