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Praise for the new school of spirit-free sippers

During fall, there's Sober October, an opportunity for imbibers to rejuvenate their bodies before hectic holiday celebrations take over. And right after the holiday season, there's Dry January. That's another chance to put a pause on drinking, and many companies are taking notice.

For a growing number of consumers–not just Gen Zers and Millennials–what was once a brief break from drinking has extended beyond the popular non-drinking seasons. They have their reasons.

They're over the hangovers. They want to be healthier. Or they simply don't want to drink anymore. Whatever their reasons, options have gotten so much better for the non-imbiber, whether it's temporary or permanent. And might I add, some offerings are downright tempting. The bottom line is that gone are the days when people were limited to sugary drinks and tasteless, watered-down nonalcoholic beer, wine and spirit substitutes.

At the recent Natural Products Expo East in Philadelphia, it was evident the trend had caught fire. With almost 1,200 exhibitors, a respectable portion was focused on beverages. Slightly more than 10% of the vendors displayed their latest contributions to the beverage world, including sugarless cold-pressed juices, mushroom-infused energy drinks, plant-based milks (chickpea, macadamia, etc.), and canned spirit-free cocktails and spirits.

Most definitely, functional beverages dominated the selections. With such positioning as clarity, relaxation, focus, metabolism and more, many of these new products offered clean ingredients and bursts of flavor. For example, Odyssey's new sparkling mushroom elixir boasted lion's mane (*Hericium erinaceus*) and cordyceps (*Cordyceps sinensis*) as its special ingredients. The combined adaptogens create a dynamic duo for those athletes looking for endurance and a sharp mental edge. I typically avoid energy drinks because I find their tastes off-putting, however, a few sips of Odyssey's beverages had me wanting more. I sampled one using passion fruit, guava and orange. The collective flavors were outstanding and tasted more like a sparkling cocktail than an energy drink.

Another standout was Mocktail Club, a company started by a young entrepreneur frustrated with spirit-free cocktail choices when she was pregnant. Her premium crafted, canned, nonalcoholic drinks are lightly sparkling with natural ingredients and flavors meant to mimic classic cocktails. For now, there are four choices with my favorite being Bombay Fire, a take on the Old Fashioned. It contained pomegranate, tea and chili peppers, which gave it a bite similar to whiskey. You better believe I will be seeking that one out when there's a chill in the air.

Warmly,

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State of global beverages: Managing inflation, focusing on function

by Howard Telford

Euromonitor International's* latest nonalcoholic beverages research, launched this fall, shows a first glimpse into the volatile market ahead.

The global soft drinks industry is expected to exceed $900 billion in total sales in 2022. Three main drivers are propelling demand: record price inflation in major markets, ongoing recovery in the on-premise channel and resilient growth in functional drinks—an area clearly showcased at Natural Products Expo West and East this year.

Volume sales of energy drinks remained impressive. The global category is expected to grow by 10% in 2022. Similarly, the study estimates a 6% growth rate for sports drinks this year. Strong performances are expected for reduced sugar, fruit-flavored sparkling soft drinks and flavored bottled water.

Over the next five years, the soft drinks industry will register a 3% compound annual growth rate (CAGR) in the retail sector (when measured in constant terms). Global on-trade volume sales should recover to pre-pandemic totals by 2024, and the industry will eclipse $1 trillion in 2026.

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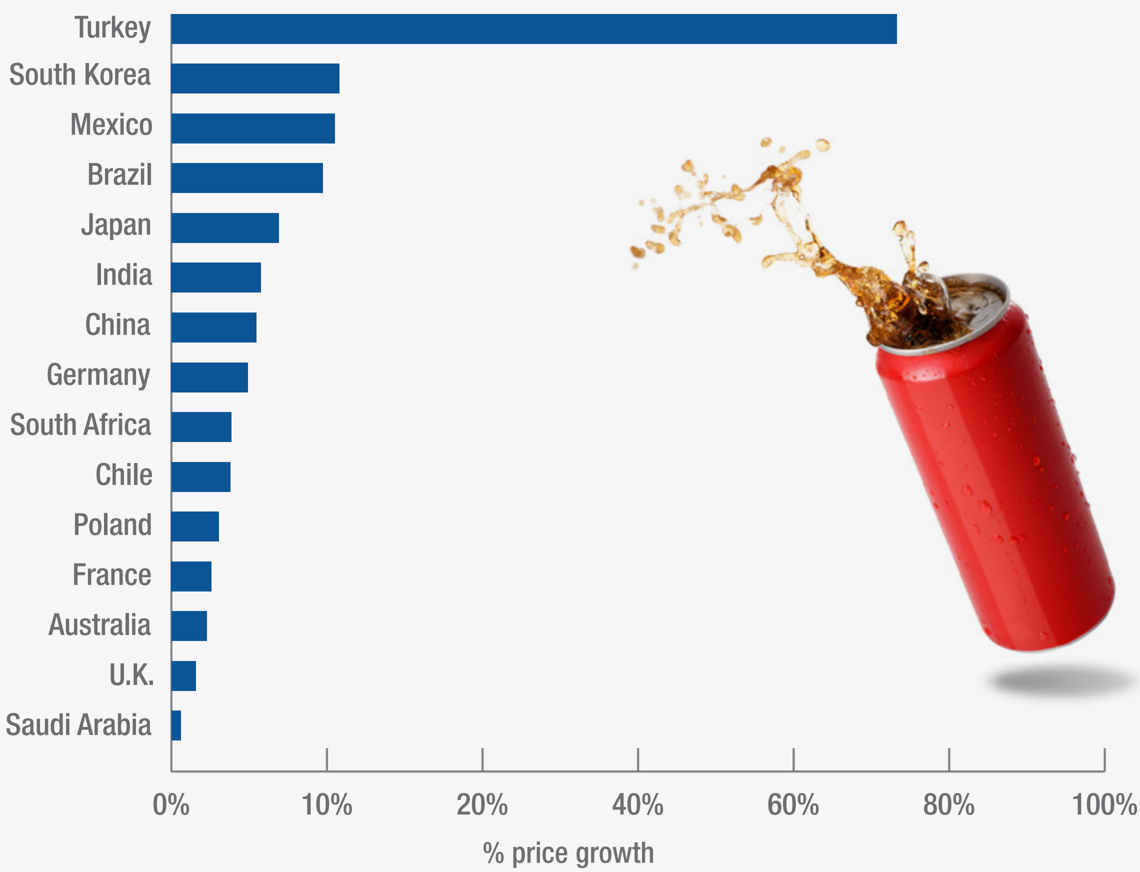
Inflation in beverages: What is the impact?

The single biggest challenge this year is attempting to understand the short- and long-term impact of price inflation. How long will cost pressures persist? What has been the scale of increase in selling price on retail shelves? And what has been the consumer response to date?

Soft drinks price tracker

Regular cola carbonates pricing, January 2021 to June 2022



Source: Euromonitor International, Soft Drinks Price Tracker

Data from Euromonitor International's Soft Drinks Price Tracker captures real-time online price activity across nonalcoholic beverage categories in 20 key markets. The chart focuses on the large and established regular (full flavor) cola carbonates category from January 2021 to June 2022.

As expected, price activity for the cola category in hyperinflationary Turkey has the largest effect. The country has seen 24-year-high inflation rates of anywhere from 83% to more than 185%, depending on the source. A nearly 80% increase is observed in the core regular cola portfolio across a sample of SKUs since January last year. Significant double-digit or high single-digit price movement, however, has been observed across many developed markets within the category—including Asia Pacific, Latin America and the largest markets in Western Europe.

Recent pricing within the cola category is broadly indicative of strong price movement across all nonalcohol categories. These record unit price increases naturally come at a cost in terms of consumption. Leading producers and bottlers have seen less retail price elasticity than historically expected in the early part of the year. But liter sales volume in large core categories like packaged water, fruit juice and sparkling drinks face flat or negative growth in many key markets. Topline ready-to-drink (RTD) retail volume sales of soft drinks in Western Europe are expected to grow by less than 1%. And North America could register flat or slightly declining volume sales for full-year 2022 as the scale of pricing action begins to bite.

Beverages with benefits lead the way

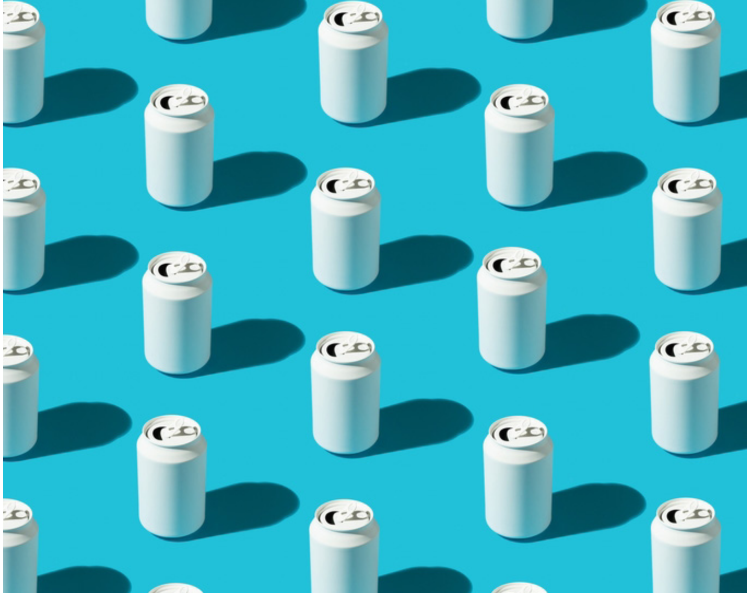
No fast-moving consumer goods category is truly recession proof or inflation proof. But the price-premium functional beverage categories—energy drinks, functional bottled water, sports drinks—remain a pocket of vibrant growth. Even as price inflation slows consumption of major refreshment categories, the outlook for functional beverages remains extremely strong. In particular, the study projects energy drinks to grow at twice the rate of global retail soft drinks over the next five years.

Price-premium functional beverage categories—energy drinks, functional bottled water, sports drinks—remain a pocket of vibrant growth.

It should come as no surprise that the biggest investments within the industry are in premium, functional beverages—brands that promise to deliver on a health and wellness function within a consumer's routine. In August, PepsiCo announced one of the biggest food and beverage deals in an otherwise quiet year for beverage mergers and acquisitions (M&A), taking a $550 million stake in the energy drink producer Celsius Holdings, a U.S. producer of hugely successful energy drinks and sports nutrition products. In November of last year, The Coca-Cola Co. acquired the remaining stake in BODYARMOR, a $5.6 billion acquisition that adds to the company's sports drink portfolio.

Nestlé scaled back its presence in the high-volume regional bottled water segment, selling Nestlé Waters North America to private equity in 2021. But the company's Nestlé Health Science division has increased investment in the premium, functional drinks category. The company finalized an acquisition of Vital Proteins, a manufacturer of collagen-infused drinks and supplement powders, in February 2022. This joins Nuun, a functional hydration brand acquired in July 2021, and Orgain, a protein and collagen supplement producer acquired earlier this year.

If energy remains the functional leader, relaxation, sleep aids and nonalcoholic adult soft drinks like alcohol-free spirits, beer and wine are the next generation of new product development in 2022. The



global market for CBD beverages has almost doubled since 2019, reaching $425 million last year. Beverage producers are incorporating adaptogenic herbs, mushrooms and other botanicals to expand the range of functional claims, need states and benefits explored in nonalcoholic options.

An independent streak in innovation, marketing

In contrast to packaged food, home care or beauty products, the global soft drinks industry remains fairly consolidated around established, leading suppliers. Last year, the top five global producers accounted for a little under one-third of retail RTD volume sales across all nonalcohol categories.

But this may be starting to change. The devaluation of traditional marketing mix in favor of social channels is leveling the playing field in terms of reach and engagement for regional and local producers. While direct-to-consumer sales remain difficult, platforms like TikTok and Instagram are hugely important to the discovery and trial of new beverages and functional concepts.

Independent manufacturers are demonstrating bolder, more experimental, and faster product development and marketing. A prime example in the U.S. beverage market of late is Liquid Death, a canned spring water. The brand combines a fun, edgy, energy drinks-inspired marketing approach with the sustainability credentials of aluminum can packaging (rather than the typical PET bottle that dominates the packaged water category).

Bright outlook, despite challenges

The soft drinks industry approaches the end of the year with a great deal of uncertainty. Evidence suggests that nonalcohol categories moved further and faster with more price increases than other areas of packaged goods in 2022. Nevertheless, beverage categories have an advantage, thanks to a large mix of options across channels (on-premise, retail) and packaging (multipacks, mini cans, fountain), which help manage and mitigate price increases while preserving affordability.

Outcome-based beverages will remain the bright spot in terms of consumption and investment in 2022. Looking ahead, one can expect more highly targeted ventures into beverages across need states, including relaxation, nonalcoholic mood alteration, immune support and digestive health. ✦

Howard Telford is the head of soft drinks at Euromonitor International, which he joined in 2010. In his role, he provides insights on consumer trends and market performance in the industry across markets. Telford's insights are regularly cited in a of national programs and publications, including CNBC, The Wall Journal, Bloomberg and Fortune, among others.

**All data in this article provided by Euromonitor International.*

The latest in healthier beverage trends

by Ari Bendersky

As SupplySide West gears up for its 25th anniversary in Las Vegas in early November, people are looking to see what's next in the food and beverage ingredient space. While we can't cover it all right here, we can discuss one segment: the healthier beverage market.

With no- and low-alcohol drinks gaining more popularity with consumers, we talked with two industry experts—Lynn Dornblaser, the director of innovation and insight at global market research firm Mintel, and Jim Tonkin, founder and president emeritus of brand consultancy Healthy Brand Builders—to see what's hot in the space.

Food & Beverage Insider: How big is the low-ABV (alcohol by volume) and nonalcoholic beverage market today?

Lynn Dornblaser: There's a lot of opportunity for low- or no-alcohol alternatives for the U.S. market, and one of the reasons for that is younger consumers are the most interested in it. That's important because younger consumers are saying they drink less alcohol, so it's a huge opportunity to capture that part of the marketplace. Younger consumers are a key target because in general they say they're looking for healthier options across all types of products and they're more focused on their mental health. They specifically see alcohol having a role in that.

Jim Tonkin: Brands like Truly and White Claw are the larger players in the space, but there are a lot of regional and additional national players coming in regularly. The demographic of the consumer has been declining in beer and alcohol consumption. [Introducing these drinks] was a way to bring them back into the alcohol world—particularly as it relates to women. The demographic was clearly intended with this product to be female with its inception using the 12-ounce slim can. However, as Truly and White Claw became so ubiquitous and available in a lot of places like stadiums, a lot of males are drinking the products, too.

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FBI: Is this trend being driven by the desire to drink on the go and portability?

Dornblaser: I think it's the ease and convenience of having a single serve, and being able to have a variety of flavors. Think of the popularity of the flavored alcoholic beverages that come in variety packs, for example. You can choose your own adventure. That's absolutely essential these days across all types of products. Millennials go out of their way to seek out new flavors and try new things.

Tonkin: It's as much about portability as low-ABV. Those are the drivers. You can drink and it's not quite as much as a beer or something like that. If you drink three to four of them in a two-hour period, you'll feel good, but not get [drunk].

FBI: What are the bigger trends in no- or low-ABV drinks?

Dornblaser: Great use of botanicals for flavor and function, but also use of functional natural ingredients like adaptogens, reishi mushrooms, etc. Anything that offers some kind of functional benefit, especially if it's naturally derived, opposed to classic energy drinks. The other thing is an interest in products that talk about anything environmentally responsible like packaging, where foods are grown, use of fruits and vegetables–anything that focuses on the good the product is doing for the environment. What also goes along with that are issues regarding ethics. The environment links to that, but also how workers are treated. That skews younger.

Tonkin: There's one coming that has traction and has been around a bit. It was called Owl's Brew. It's a tea-based product, and you mix the base with beer or your favorite alcohol. They came out with a new 12-ounce slim can called Boozy Tea, along the lines of these ABV products, but the additive is tea, so it's a healthier product. That's one I think has the potential to start a new craze by marrying two unnatural partners together, taking parts from liquor space and adding that to healthy products like brewed tea. There's a big audience out there for that type of product. ✦

Ari Bendersky is a Chicago-based lifestyle journalist specializing in food, wine, spirits and travel. His work has appeared in the New York Times, WSJ magazine, Associated Press, Men's Journal, AFAR and Wine Enthusiast. Bendersky also co-hosted the Overserved podcast.

Sip Sip Hooray

Want to hear from more beverage experts?

SupplySide West and Food ingredients North America (FiNA) is offering a best-in-class education session, "Healthy beverage formulation, innovation and market insights," on **Friday, Nov. 4**, from 9 a.m. to noon at Mandalay Bay in Las Vegas. Presentations will include topics such as market trends and challenges/solutions in formulation and supply chain. Jim Tonkin will moderate fireside chats with leaders from frontline CPG brands Zico Rising, Owl's Brew and Weller CBD, and all panelists will participate in audience Q&A. The session can also be accessed via livestream for show attendees purchasing a virtual pass. This session is underwritten by Cargill.


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Pour choices in beverage ingredients and formulation

by Cindy Hazen

Most consumers today are looking for more than hydration in their drink selections. Clean label and reduced sugar go without saying, but more subtle cues, such as the presence of ingredients that promote emotional and physical well-being, drive purchase.

Proprietary 2020 research from Health Focus International reveals that 6 in 10 Americans believe foods, beverages and ingredients have medicinal benefits, and 4 in 10 are proactive about trying new foods and beverages that offer health benefits. This belief will likely grow as research suggests these views are especially strong with younger consumers.

As consumers tune in to functional beverages, benefits center around immunity, gut health and mental health. "Four in five consumers say they recognize the link between digestive health and overall health, while two-thirds say they've become more conscious of their overall immunity as a result of Covid-19," said Carla Saunders, senior marketing manager, high-intensity sweeteners, Cargill (FMCG Gurus Consumer Study 2022; HealthFocus International U.S. Trend Study 2021).

ADM's proprietary Outside Voice studies show fiber is the No. 1 ingredient consumers want to add to their diets for reasons like digestion, weight management and satiety. Concurrently, 58% of global consumers perceive a connection between the function of the bacteria in the gut to wider aspects of well-being. With that, shoppers are increasingly drawn to microbiome-supporting solutions like probiotics. Notably, awareness is consistent across generations, with 60% of both Gen Z and Gen X saying they

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> "Four in five consumers say they recognize the link between digestive health and overall health, while two-thirds say they've become more conscious of their overall immunity as a result of Covid-19."
>
> -Carla Saunders, senior marketing manager, high-intensity sweeteners, Cargill

have purchased a probiotic product in the last 12 months, and 62% for both Millennials and Baby Boomers (FMCG Gurus, Probiotic Trends by Cohort – North America, August 2021).

The findings presented by Cargill and ADM beg the question. How can developers formulate beverages with ingredients that meet consumers' nutritional health goals?

"Biotics" for the win

A delicate balance of microorganisms within the human body is essential to good health. Much of the action takes place in the human intestinal tract, where prebiotics feed the beneficial bacteria known as probiotics. Postbiotics are metabolic compounds generated by microorganisms such as bacteria, algae or yeast. These compounds are made during the fermentation process, including remnants of the microorganism. Unlike prebiotics and probiotics, they are not alive.

The International Scientific Association for Probiotics and Prebiotics (ISAPP) defined synbiotics as a "mixture comprising live microorganisms and substrate(s) selectively utilized by host microorganisms that confers a health benefit on the host." According to Kristin Wilhoyte, director of global product marketing, Deerland, "Synbiotics can be combinations of probiotics with prebiotics, postbiotics and other microbial strains."

All these biotics (pre-, pro-, post- and syn-) support digestive and immune health.

Prebiotics, such as fructooligosacchrides (FOS) or inulin, offer other wins for consumers and industry. First, they add fiber. The chain lengths of the molecules will determine solubility. Shorter chains are more soluble. Plus, they have the added benefit of increasing sweetness perception. Longer chains provide texturizing effects.

Icon Foods' Prebiotica P95 FOS aids in sugar reduction by contributing to mouthfeel. "I also use Fibrefine soluble tapioca fiber to stack the fibers to reduce the potential for GI [gastrointestinal] issues," said Thom King, president, Icon Foods. "I would not go any higher than 5% of the total solution. If you stack fibers, you may be able to go as high as 7% without any bowel tolerance issues.

"Both these fibers play very well with high-intensity sweeteners like stevia and monk fruit. They can knock the edge off some of the known off-notes inherent to high-intensity sweeteners," King explained. "Both Prebiotica P95 FOS and Fibrefine soluble tapioca fiber are neutral in flavor and are about 25% to 30% as sweet as sucrose. They are colorless and dissolve into solution with agitation below shearing. They are both shelf- stable; however, FOS can reduce to a sugar in hot pack, UHT [ultra-high temperature] where pH is below 2.3. Both are completely stable in high-pressure processing (HPP)."

ADM/Matsutani LLC's line of Fibersol soluble prebiotic dietary fiber ingredients are derived from corn. Besides adding dietary fiber, they can act as a low-calorie bulking agent. "Over 30 years of research demonstrates that Fibersol is shown to be well tolerated at up to 68 grams per day," said Vaughn DuBow, global director of marketing, microbiome solutions, ADM (J Nutr Sci Vitaminol [Tokyo]. 2013;59[4]:352-357).

When adding probiotics to a beverage, such as *Lactobacillus* in a yogurt drink, the number of colonizing units is a key factor because the bacteria must survive processing. Wilhoyte suggested a solution: "Our innovative, spore-forming probiotic DE111A (*Bacillus subtilis*) retains functionality through challenging processing conditions that may otherwise damage conventional lactic acid bacteria probiotics, such as low pH or high heat for certain beverage formulations, including for on-trend kombuchas, juices and functional soda offerings," she said.

DuBow mentioned yet another viable option, BPL1 (*Bifidobacterium animalis subsp. lactis* CECT 8145). A heat-treated counterpart, BPL1 HT contains nonviable microorganisms, so it can withstand harsh formulation environments like high heat or pasteurization used for certain applications, such as dairy-based beverages.

Postbiotics are an emerging category. Cargill's proprietary IngredienTracker survey found 1 in 5 shoppers are familiar with postbiotics. On the formulation side, they offer a distinct advantage. Because postbiotics are not living organisms, they are high heat and pH stable. "Unlike prebiotics, postbiotics typically require relatively low use rates," said Jenna Nelson, EpiCor channel lead, functional food & beverage, Cargill. The company's EpiCor postbiotic has a recommended use rate of just 500 mg.

"In the U.S., EpiCor postbiotic is labeled as 'dried yeast fermentate' within the ingredient list," Nelson explained. "This is the common and usual name that is included in our ingredient declaration for both the U.S. and Canada. For natural health products in Canada, it is declared as "dried fermentate (made using *Saccharomyces cerevisiae*)."

IMMUSE LC-Plasma, from Kyowa Hakko USA Inc., is a patent-protected, heat-killed lactic acid bacteria strain. Called a novel postbiotic, it has been the subject of 29 published studies including 14 human trials, such as one in which antiviral immune response was studied in a beverage application (Jpn Pharm Ther. 2015;43[10]:1465-1472). The ingredient can be formulated in a variety of foods and beverages, including yogurt.


FUNCTIONAL INGREDIENTS FORTIFYING YOUR FOODS, BEVERAGES & DIETARY SUPPLEMENTS
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Mindful additions

The mind-body connection is the cornerstone of good health. While a single ingredient can't cure the external stressors of life that impact the physical body, options are available that support brain health and improved focus. Many beverages are formulated with caffeine to give dual benefits. Maria Stanieich, marketing manager, Kyowa Hakko USA Inc., suggested an ingredient such as Cognizin. She pointed to studies suggesting citicoline can support mental energy without giving one the jitters (Methods Find Exp Clin Pharmacol. 2006;28 Suppl B:1-56), and that as a nonstimulant nootropic, it can provide both brain nutrition and potential performance benefits (Clin Interv Aging. 2013;8:131-137). Derived from Kyowa Hakko's fermentation process, it is vegetarian, allergen free and self-affirmed GRAS (generally recognized as safe).

Vitamins are frequent additions to beverages. ADM noted 78% of U.S. consumers are specifically interested in vitamin C, 76% in vitamin A and 65% in vitamin D (FMCG Gurus, How Has Covid-19 Changed Consumer Behavior, March 2021). "Incorporating botanicals that provide sought-after vitamins and minerals, like açai and citrus, can elevate functional beverages," Dubow said. "Moreover, consumers also tend to connect vitamin E to immune support, and our natural vitamin E can be easily incorporated into beverages."

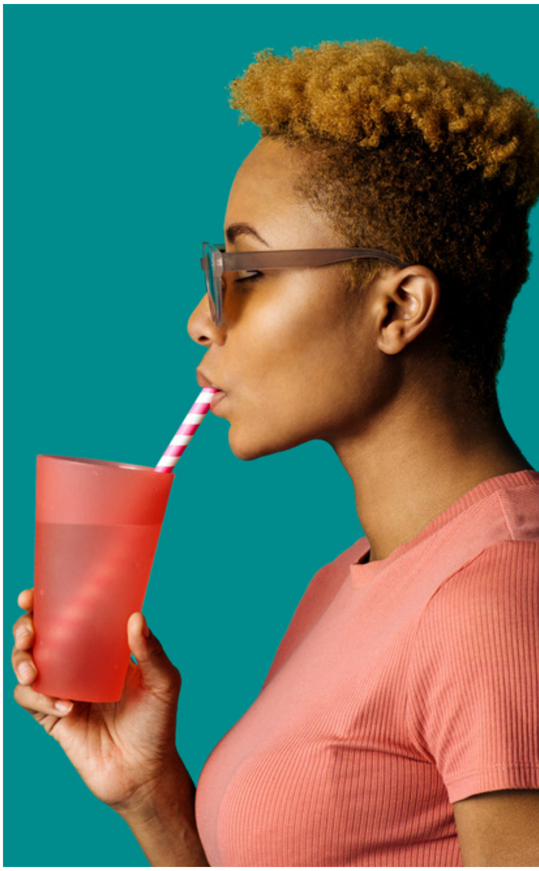
Jeremiah Yartym, R&D manager, Prinova USA, observed B vitamins and vitamin C tend to be the most common due to the availability, solubility and fortification levels they offer. "Some ingredients, such as riboflavin and folic acid, can impart color, while thiamine and niacinamide can impact taste," he said. "Vitamins A and E can also sometimes impart cloudiness on the product."

Vitamin premixes are commonly used. Depending on the overall formula, other ingredients such as minerals, botanicals, acidulants, gums, amino acids and nucleotides can be included in the premix.

Enhancing the mix

Trending health ingredients often present bitter off-notes. Alex Amann, junior flavorist, Prinova, underscored the need to understand the taste and color implications of functional ingredients from an ingredient and chemical standpoint. "Having a thorough knowledge of the ingredient allows R&D to apply different technologies to effectively overcome the challenge," he said.

The postbiotic EpiCor, for example, brings a rich, brown color and unique, savory flavor to formulations. These characteristics can be limiting in the beverage category. The color may impact some bright colors and clear and white liquids. The team at Cargill has identified



ways to overcome some color hurdles, but formulating EpiCor into a darker base is easiest, as it will blend in. The ingredient pairs well with chocolate, vanilla and dark red fruits.

Managing sweetness is a crucial step. “Consumers rank sugar reduction as the No. 1 way to make beverages healthier, outranking attributes like eating clean, removing negatives (e.g., poorly perceived or unfamiliar ingredients) and adding positives (e.g., ingredients perceived as healthful),” Saunders said (HealthFocus International, 2020). Sugar reduction, in fact, is the leading dietary change consumers made in the past year (HealthFocus International, 2022).

According to Cargill’s proprietary research, 62% of U.S. consumers said they are likely to check the amount of sugar before purchasing a new product. Research from the International Food Information Council’s (IFIC) 2022 Food and Health Survey found 73% of consumers said they are trying to limit or avoid sugars in their diets. Three out of five consumers aged 18 to 29 said they’re seeking products that taste less sweet; this trend is especially evident in the booming flavored water and hard seltzer space, per 2021 Euromonitor data.

“If we zero-in on attitudes toward sweeteners, our proprietary research finds that ‘natural’ claims resonate strongly across generations,” Saunders said. “However, they’re especially influential to Gen Z, where ‘no artificial sweeteners’ claims have the highest impact on purchase. Given that the youngest generation often serves as a bellwether to future trends, this suggests interest in non-artificial sweetener choices like stevia will continue to grow.”

Sweetening challenges are inherent in the manufacture of functional beverages. “They’re trying to improve the consumer perception of their labels, reduce sugar, maintain the full-sugar taste consumers love, and remove artificial high-potency sweeteners—all while creating functional beverages that incorporate health-supportive, but often taste-challenged, ingredients,” explained Smaro Kokkinidou, principal food scientist, Cargill.

Functional ingredients can introduce negative sensory attributes that impact multiple facets of the sensory experience of a product, “including the way a characterizing flavor expresses, the sweet-sour balance of a beverage, and even the temporal expression dynamics of individual attributes,” Kokkinidou added. “Flavor perception is an interplay of cross-modal interactions, and small changes in one sensory attribute can translate to a unique sensory experience.”

The good news is that she finds the formulation challenges are not stevia specific. Stevia products can be a useful tool in optimizing taste. Cargill’s EverSweet + ClearFlo brings together the company’s stevia sweetener with a natural flavor. “The resulting sweetener system offers wide-ranging benefits that include flavor modification and enhanced mouthfeel, along with improved solubility and stability in formulations, and faster dissolution,” Kokkinidou stated.

With EverSweet’s quick sweetness onset and high sweetness potency as a foundation, the product goes a step further by helping manage off-flavors from other ingredients used in the formulation, including earthy notes from proteins, bitterness from caffeine and metallic tastes from minerals.

King, of Icon Foods, experiences the best results when blending sweeteners. “I always prefer a symphony to a soloist and lean into a blend with high-intensity sweetener,” he said. His favorite uses

Pectin is commonly used to stabilize the protein in acidified beverages.

allulose as a bulking sweetener because it contributes to mouthfeel like sucrose, though maybe a little thinner. He recommends adding monk fruit and stevia because each can mask the other's off-note. Stevia offers a slight licorice flavor, while monk fruit tastes a bit like melon rind.

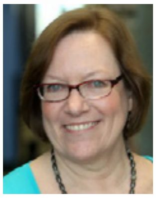
"I also add Prebiotica P95 FOS and Fibrefine soluble tapioca fiber to build on the mouthfeel and for the fiber callout on the nutritional facts panel," King continued. "Lastly, if I am working on an energy drink or a drink containing apoptogenic compounds, I use a sweetness modulator containing thaumatin (Thausweet)."

Mouthfeel cannot be overlooked in a beverage. Compare the thin nature of an unsweetened tea with the fullness of a sugary soft drink. Iliana Nava, senior technical service specialist, hydrocolloids, Cargill, called pectin a go-to ingredient in many reduced-sugar or reduced-pulp beverages and juice drinks. "It helps keep everything in suspension and builds back mouthfeel and body," Nava explained. "Pectin is a great alternative in these formulations, as it delivers mouthfeel without a high increase in viscosity."

Pectin is commonly used to stabilize the protein in acidified beverages. "The pH of these applications is usually close to the casein's isoelectric point (pH of 4.6), which can cause the protein to aggregate if it's not protected," Nava said. "For this reason, pectin is used as a protective colloid. Without it, proteins will stick together, forming large clumps that settle to the bottom of the container, resulting in a gritty, unappealing texture."

Carrageenan is used in many neutral pH beverages containing protein and electrolytes. "In these applications, it stabilizes proteins and provides properties such as thickness, viscosity and creaminess to the finished beverage," Nava continued. "It's also well-suited for UHT/retort beverages. Dairy and plant-based proteins are especially susceptible to heat during processing.

"This is a special challenge for beverages created with ultra-high temperature (UHT) processing, as formulators run the risk of denaturing the proteins, causing a sandy or gritty texture. Hydrocolloids like pectin and carrageenan can coat and protect the protein, and at the same time, help create the thick, creamy texture consumers expect from dairy beverages. They can also help provide good homogenization and prevent phase separation and precipitation." ✦



Cindy Hazen has more than 25 years of experience developing seasonings, dry blends, beverages and more. Today, when not writing or consulting, she expands her knowledge of food safety as a food safety officer for a Memphis-based produce distributor.

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Clean, booze-free beverages offer sober fun to social drinkers

by Melissa Kvidahl Reilly

Dry January and Sober October are just the beginning. "Sober-curious" consumers are dipping their toes into the year-round spirit-free life at a rapid rate, driving the market for nonalcoholic alternatives like never before.

According to a NielsenIQ survey from January, 22% of consumers are cutting back on alcohol for a number of reasons: They're going out less, they don't crave it as much as they used to and they want to live healthier lives overall.

The result? Consumers spent $3.3 billion on no- and low-alcohol beverages in 2021 at retail, Nielsen said. But it doesn't have to be all or nothing: Similar to how flexitarians drive growth of plant-based foods, the vast majority of spirit-free consumers (78%) also drink alcohol.

Here, experts from three nonalcoholic spirit brands—Crab & Butterfly, Monday Spirits and Ritual Beverage Co.—talk consumer demands, top ingredients and lingering challenges.

Food & Beverage Insider: What is driving consumer demand in clean, nonalcoholic spirits and mixers?

Brianna Halstead, co-founder, Crab & Butterfly (right): There are a lot of factors contributing to the rise of the nonalcoholic beverage market, but particularly an urgency to seek a healthier lifestyle resulting from the last few years of living through a pandemic. The nonalcoholic beverage market seems to be benefiting from loosening cannabis restrictions and is creating room for alternative ways of enjoying free time without using alcohol.

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As Gen Z grows, we see an emphasis on healthier lifestyles and a more conscientious style of consumption. Additionally, this generation is confronting societal norms, such as alcohol consumption, that perhaps haven't been so directly addressed in the past. They view being sober as fun and acceptable. In the past, there has never been such a strong alternative lifestyle or roadmap to recovery for those who need it.

In some ways, the movement reminds us of the plant-food movement. Both were born out of a collective societal desire to go against the grain of the familiar and tired style of mass marketing products that aren't necessarily good for us or the planet. This opens space for smaller companies to compete in a new market before it is completely commodified by larger organizations. The competition is exciting because it helps lead to more and more creativity.

Chris Boyd, CEO, Monday Spirits: According to Nielsen, the nonalcoholic beverage category is the fastest-growing segment of adult drinks. Similar to the rise of plant-based meats and milk alternatives, consumers are taking control of what goes into their bodies and prioritizing their health more than ever before. Having a hard look at one's alcohol consumption is a natural next step on the journey toward a wellness-driven lifestyle.

For many who have taken a step in the nonalcoholic direction, they've come to realize modern nonalcoholic drinks actually taste good (this ain't your parents' O'Douls), giving consumers the flavor they seek without the negative effects of alcohol they're trying to avoid or take a break from. In other words, this category allows folks to truly have it all without alcohol, and that's enticing for a growing portion of the population.

FBI: What ingredients are top of mind right now for clean mixers and spirit-free cocktails?

Marcus Sakey, founding partner, Ritual Beverage Co.: Clean is the key word there. Modern consumers are discerning about what they put in their bodies. For us, that means using only natural botanical essences, individually distilled to lock in the purest flavor, and blended to create intricate profiles. Ritual isn't alcohol with the alcohol removed; it's more like cooking, using the flavors key to traditional spirits to create a sophisticated alternative. Spirit alternatives are about having more, not having less.

Halstead: Similarly to fire cider, vinegars themselves are becoming popular as proxies for wine. The market is also seeing more herbal elixirs and tinctures, herbal tonic bars and small-batch CPG tonics, which have a variety of uses and can all be used in a myriad of beverage styles. Nonalcoholic "liquor" stores and apothecaries are popping up in cities and it's this collective group thought, centered around health, that is a major factor contributing to the overall growth of the market. Today, the desire to know more information about where our food and consumables are coming from is a priority for a much larger percentage of the consumer population.

The ingredients that have most recently become more marketable are ingredients that more easily align with concepts such as seasonal or farm to glass. Highlighting any product made from produce at the peak of its season has always been relevant in the food and restaurant spheres, and it is exciting that it is now becoming a priority in the CPG beverage market.

FBI: What challenges must brands be aware of in the natural mixers and spirit-free market?

Sakey: Ritual was the first liquor replacement in America, and when we launched, it was a novel concept. Everyone's first reaction to the notion of nonalcoholic gin or whiskey was, "Why?!" And of course given the internet, it was rarely said that politely.

We set about engaging with people to answer that question. Why would you want a spirit alternative? Because you're dieting, driving, making a baby, raising a child, taking a month off, getting up early, have already had two, don't drink for personal or religious reasons, on and on and on. And over time, the trolls were outnumbered by the people who saw themselves in one of those reasons.

Interestingly, most of our customers also drink alcohol. They just want an option, the same way I have both oat milk and skim in my fridge right now.

Boyd: The big, hairy, audacious challenge for brands in our category is all about creating alcohol-free formulations that can compete with the taste profiles of our boozy counterparts. Alcohol is a bit of a magic molecule in the flavor department and is virtually unmatched when it comes to extracting flavor from ingredients.

In order to compete on taste without this secret weapon, brands will have to be innovative in their approach to R&D to get formulations headed in the right direction to please consumers' palates. ✦

Melissa Kvidahl Reilly (mkvidahl@gmail.com) 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.

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