

Three insights to food and beverage product success

Your consumers expect only the best. As food and beverage professionals, you've no doubt felt the pressure to please them. While 'good for you' is increasingly becoming one of consumers' top demands, 'good tasting' still remains the most important factor in any food and beverage product.

Achieving that delicate balance between science and the art of great taste is no easy task, especially when consumers' expectations about both seem to be continually changing. To keep pace, you need insight into what consumers want now – and what they might want tomorrow – not only to help guide your R&D processes, but to better target your marketing efforts as well. Of course, all of this depends on having high-quality ingredients to start with.

From trends to taste to trusted partnerships, the information included in this paper provides end-to-end insight into developing products that not only meet – but also exceed – consumers' expectations.

'Three keys to customization' looks into the challenges and opportunities of developing products – in particular, liquid water enhancers – that respond to consumers' call for more control.

As we all know, taste is king when it comes to consumers' purchasing habits, and the infographic **'Mind the gap'** proves it.

And finally, **'Does your ingredient supplier measure up?'** explains how you can put all of this information into action and create high-quality, good-tasting products that cater to consumers' wants and needs.

Consumers are forever changing their tastes and habits. Let this information help you always be ready with a solution.



Liquid water enhancers

THREE KEYS TO CUSTOMIZATION: WHAT TO CONSIDER WHEN DEVELOPING LIQUID WATER ENHANCERS

Customization has become a consumer expectation. As humans, we love to celebrate our uniqueness, and self-expression plays a role in nearly every aspect of our lives – including in our food and beverages. Just as no two manufacturers' needs are the same, consumers don't fit into a one-size-fits-all approach, either. Considering that each human has a unique set of about 10,000 taste buds, it's understandable that consumers are demanding products that enable them to customize the level of flavor and sweetness in their food and drink.

Super-concentrated, pocket-sized liquid water enhancers are one of the recent product innovations resulting from this trend. According to Zenith International's 'Liquid Water Enhancers 2014' report, since its introduction to the U.S. market in 2011, the category has grown to an estimated \$412 million (£246 million) in value. In less than three years, more than 30 brands and 150 variants have been launched, with more innovation and line extensions predicted for 2014. In fact, Nielsen predicts that household penetration of the category will grow 43% for the year.

Beyond liquid water enhancers' convenient and unique package design – a portable, lightweight, plastic bottle with a no-leak, click-to-close cap – the products also have a sensory appeal as consumers are able to personalize their beverages according to their mood or the occasion.

Challenges to entry

While the market is primed for more entrants, product success doesn't come easy in the category. 'Formulators have limited experience making these, since they're so new,' says Adrienne Pohrte, Team Leader, Beverage Applications at Tate & Lyle. 'Development-wise – determining what flavors work well, the packaging and shelf life – are just a few of the challenges to address when bringing this type of product to market.'

According to Pohrte, formulators must focus on three main components when developing liquid water enhancers: sweetener, flavor and acid.

Sweetener

Sweetener choice is one of the most important factors to consider when formulating this type of product. Because consumers are using only a few drops of liquid water enhancer at a time, a high-potency sweetener is required in formulations to ensure enough sweetness is delivered in each squeeze. According to Pohrte, sucralose is the ideal sweetener choice due to its superior stability in acid systems and its high level of potency (600 times sweeter than sugar), which enable it to maintain its sweet taste for the product's long shelf life.

Flavor

'Getting enough flavor into the product and then keeping it in solution is a challenge,' says Pohrte. Formulators must choose a flavor that is water-soluble, can withstand being stored at high concentrations at room temperature and interacts well with other ingredients. 'Flavors can have different bases, so you want to make sure that all your flavors are similar so they stay well mixed and can be stored at room temperature and not change over time,' Pohrte adds.



Liquid water enhancers

Acid

The type of acid to use to help preserve the product and refine the taste of the ultra-concentrated liquid is another key factor formulators must consider. An attractive characteristic of liquid water enhancers is their long shelf lives; most are usable for 30 days after opening and can be preserved up to 12 months unopened.

Citric acid is a popular choice for most enhancers on the market today, since it marries well with fruit flavors. To complement non-fruit flavor profiles, phosphoric acid is often the best choice, especially in liquid drops used to flavor coffee beverages, in which citrus notes are not desirable.

A holistic approach

As the liquid water enhancer category continues to expand (other countries predicted to have the strongest potential market for these products include China, Germany, UK, France and Italy, according to Zenith International)¹ and more players enter the market (expect to see innovative products in the dairy, spirits and hot-drink categories), companies' success will become even more dependent on proper formulations and high-performance ingredients.

With more than 30 years of experience producing SPLENDA® Sucralose, Tate & Lyle knows everything there is to know about this optimal ingredient for these products. Our network of 15 global applications labs span the world, giving you access to opportunities to improve processes and bring new, better and more profitable products to market, no matter where you are located. And let's not forget that Tate & Lyle has experts like Adrienne Pohrte (our team leader for beverage applications in North America), who can help you navigate the waters when it comes to creating great-tasting beverage formulations.

¹Zenith International, 'Liquid Water Enhancers 2014,' February 2014



The missing ingredient in low-calorie sweeteners

MIND THE GAP: THE MISSING INGREDIENT IN LOW-CALORIE SWEETENERS



Claim 'good tasting' food is the top purchasing motivator.²



Use low-/no-calorie sweeteners to lose or maintain weight.³

BUT ONLY



Use low-/no-calorie sweeteners for their taste.⁴

What if you could ask more of your sweetener?

Looking for a trusted partner?

We realize innovation doesn't occur only inside our walls. In fact, one of our leading ingredients, SLENDA® Sucralose, was a result of a collaboration between an external partner and us. If you would like to partner with a global leader to create or refine your product, contact us.

CONSUMER LOYALTY CLEARLY LIES WITH THEIR TASTE BUDS.

The bottom line is: if products don't taste good, consumers won't buy them.

To create winning products, it's not just about delivering the low-calorie benefit consumers demand. It's also about giving them the sweetness and great taste they desire.

Tate & Lyle's team of sensory specialists and formulation and application experts understand the sense and science needed to bridge the gap between taste and function. Let us help you discover the formulation that will elevate your brand.

²Mintel and Nielsen, 'Sweetener360'

³Multi-sponsor Surveys, Inc., '2013 Gallup Study of Sweetener Preferences'

⁴Ibid

DOES YOUR INGREDIENT SUPPLIER MEASURE UP?

When it comes to your ingredient supplier, are you getting the most value? Yes, it's necessary they do what their name implies – supply you with ingredients – but in today's competitive environment, is that enough?

The once-common transactional-type of relationship between supplier and manufacturer will no longer suffice. To keep pace in today's fast-moving market with an ever-evolving consumer, you need a partner that helps you identify opportunities, improve processes and bring new, better and more innovative products to market.

1 Safe and secure

When it comes to an ingredient supplier, confidence in their quality and safety standards translates into security for your consumers. According to Deloitte, the average cost of a product recall is \$10 million (£5.9 million),⁵ and that's not including the impact it has on a brand's reputation or the missed revenue from lost sales. Make sure your supplier operates by the highest standards:

- Is every product and shipment tracked?
- Do they invest in ongoing workforce training programs?
- What is their defect policy?
- Do their facilities meet the required Global Food Safety Standards?

2 A shared innovative environment

Research in the *Journal on Chain and Network Science* found that companies that seek collaborative partnerships to help with their innovation process see significant positive effects in the market performance of their products.⁶ This requires a supplier that is just as invested in innovation as you are. Questions to consider:

- Do they have application teams who can work with you to quickly make prototypes and perform sensory testing if needed?
- Do they have a pilot plant that enables you to test your new products on-site before you scale up?
- Are there ongoing innovation initiatives in their pipeline to continually improve their ingredients and provide you with additional ingredient choices?
- Do they offer flexible packaging options?



Ingredient suppliers



3 Experience leads to expertise

A supplier should help you make better use of all your ingredients. To do that, they need expertise in a vast portfolio of ingredients in order to understand how each ingredient works individually as well as in combinations. This type of expertise in ingredients is driven by years of hands-on experience. Ask these questions to ensure your supplier has the experience you need:

- Do they have category experts who can provide answers to address your specific challenges?
- Do they offer technical assistance when you need it to overcome formulation, process or stability roadblocks?
- How extensive is their library of recipes to demonstrate the functionality of their ingredients?
- Do they have a global network of resources to ensure that application sciences are applied quickly and effectively while considering regional taste differences?

4 In our supplier we trust

At the 2013 Food Technology & Innovation Forum, R&D leaders at Starbucks, Molson Coors and Abbott Nutrition all admitted that a lack of trust had hampered collaborations with suppliers in the past. 'We need to be open and trust our suppliers,' said Steve Chandler, former vice president product and process technology at Starbucks. Are you completely comfortable doing that with your current supplier? Use these questions to find out:

- Can they provide a continuous production process to ensure your ingredient demands can be met?
- Can they provide you with physical and chemical analyses of their ingredient that ensure consistency and quality?
- Is logistics support available to ensure what you need can be delivered when you need it?
- Has their production process proven to be reliable with other customers?

Yes, this is a lot to consider, and it may seem like a lofty list for any supplier to fully achieve. Not many suppliers can provide a definitive 'yes' to all of these questions, but Tate & Lyle certainly can. All of these elements comprise the foundation of our SPLENDA® Sucralose PLUS PROGRAM, a customizable offering of concept-to-lab-to-market services that helps food and beverage companies grow their businesses. With more than 30 years of formulation experience, 15 regional application and technical service centers, the world's largest sucralose production capacity and an exclusive continuous product process, our team offers the experience, innovation, confidence and security that most suppliers can't.

To learn more about the SPLENDA® Sucralose PLUS PROGRAM, visit www.sucralose.com/plus.

¹Deloitte, 'Recall Executing Effectiveness: Collaborative Approaching to Improving Consumer Safety and Confidence,' May 2010

²Journal on Chain and Network Science, 'Role of Open Innovation in the Short- and Long-Term Market Success of New Products: Evidence from the Dutch Food and Beverages Industry,' 2011





About Tate & Lyle

Tate & Lyle is a global provider of ingredients and solutions to the food, beverage and other industries, operating from over 30 production facilities around the world.

Tate & Lyle operates through two global business units, Specialty Food Ingredients and Bulk Ingredients, supported by the Innovation and Commercial Development group. The Group's strategy is to become the leading global provider of Specialty Food Ingredients through a disciplined focus on growth, and by driving Bulk Ingredients for sustained cash generation to fuel this growth.

Specialty Food Ingredients consists of three platforms: Texturants, which includes specialty starches and stabilizers; Sweeteners, which comprises nutritive sweeteners and our range of no-calorie sweeteners including SPLENDA® Sucralose; and our Health and Wellness portfolio, which includes specialty fibers and our salt-reduction offering. Additionally, our food systems business provides a wide variety of blended ingredient solutions.

Tate & Lyle Bulk Ingredients includes bulk sweeteners, industrial starches and fermentation products (primarily acidulants). Corn co-products from both divisions are primarily sold as animal feed.

What is the SPLENDA® Sucralose PLUS PROGRAM?

Tate & Lyle has a long heritage as a specialty food ingredients company and decades of experience with SPLENDA® Sucralose.

The SPLENDA® Sucralose PLUS PROGRAM brings that experience, innovation, confidence and security together as a suite of offerings that help food and beverage manufacturers bring new and better products to market faster and more efficiently.

Visit www.sucralose.com/plus to learn more.

ONLY THE SPLENDA® SUCRALOSE PLUS PROGRAM DELIVERS MORE.

Trusted in the development of more than 5,000 products in over 80 countries, only SPLENDA® Sucralose from Tate & Lyle delivers the great sweet taste consumers love, **PLUS:**

Experience

With more than 30 years of experience producing SPLENDA® Sucralose, Tate & Lyle can bring thousands of recipes and a team of expert formulators to the table. What does that mean for you? Product development without all the guesswork. So whether you're looking for test-market batches or production-plant-ready formulations, we're here to help.

Innovation

At our 15 regional application and technical service centers, dedicated application teams are ready to help you make the next big thing. In our labs, we also have over 100 ongoing initiatives to help bring SPLENDA® Sucralose even closer to the taste and texture of sugar.

Confidence

Our logistics support, along with the world's largest sucralose production capacity from our two sustainable global production facilities, ensures that when your product line grows, we can deliver what you need, when you need it.

Security

Only Tate & Lyle has a continuous production process and 200+ analyses daily to ensure our zero-defect policy. Add that to our unrivaled operational and product safety practices, and the choice for food and beverage manufacturers is clear.



Learn more about how you can join the **PLUS PROGRAM** today at Sucralose.com/PLUS. Or call your sales representative.

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