RESEARCH REPORT

BALANCING CONSUMER PREFERENCES:

Reducing sugar and increasing fibre consumption

AN IN-DEPTH GUIDE TO HELP MANUFACTURERS BETTER UNDERSTAND THE CONSUMER LANDSCAPE AROUND SUGAR AND FIBRE.

MAKING FOOD EXTRAORDINARY

TATE & LYLE

MAKING FOOD EXTRAORDINARY

TATE & LYLE

SINCE 1859

NUTRITIOUS AND DELICIOUS

An in-depth guide to help manufacturers better understand consumer perceptions around sweeteners and fibres

When it comes to consumer purchasing decisions and perceptions regarding food and beverage choices, there are many influencing factors, including health considerations, lifestyle trends, taste, price and more.

In recent years, it seems health and well-being have climbed to the top of that list, and it's easy to see why. Obesity has become a major health challenge across the globe, and the health risks associated with the condition are abundant – diabetes, hypertension, heart disease and certain cancers. Worldwide obesity has more than doubled since 1980.[1] As this rate continues to escalate, so too will the health risks associated with it. Because of the obesity epidemic, the medical community at large has given priority to strategies designed to educate and inform consumers on the benefits of regular physical activity and healthier dietary choices to reduce excess calorie intake.

An increased focus on the growing obesity epidemic has made many people across the globe more aware of what they are consuming. As a result, many have a better idea of the ingredients they would like to consume less of to meet their personal health and wellness goals. For example, consumers claim they want to eat or drink products with less fat (56%), less sugar (55%) and fewer calories (42%).[2]

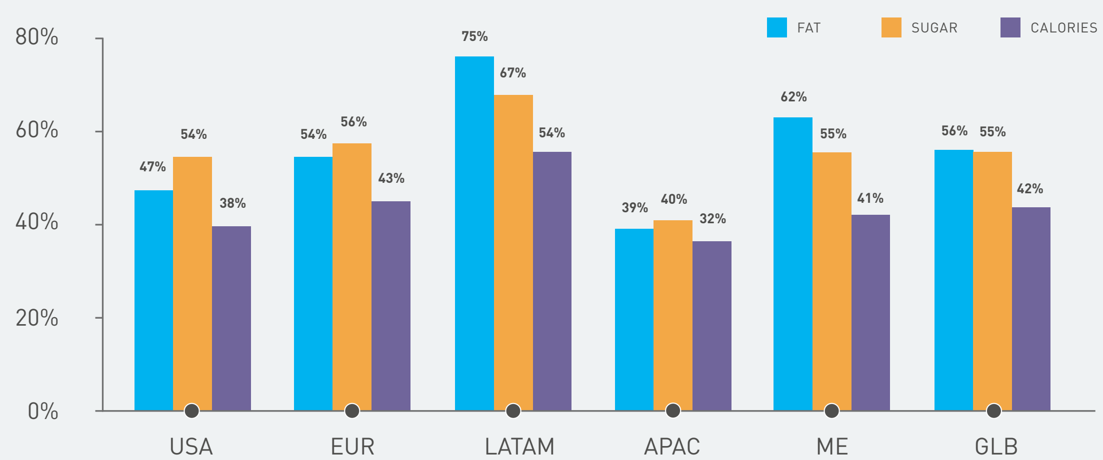
Those same consumers also report wanting to increase their intake of 'better for you' ingredients, such as fibre and protein. Globally, 52% of people want to increase their fibre intake, and 47% want to eat or drink more protein.[2] But while consumers desire healthier foods and beverages, they are not willing to sacrifice taste. **In fact, 84% of Americans still rank taste as their No. 1 purchase driver, followed by price (71%) and healthfulness (64%).[3]**

These findings present a multifaceted challenge for food and beverage manufacturers. They are managing internal pressures to hit short-term sales goals while seeking to competitively position products or develop new ones. Now more than ever, manufacturers must determine ways to add 'better for you' claims – including 'digestive health', 'no added sugars' and 'fewer calories' – if they want to stay within their target market's consideration set. These companies are expected to simultaneously deliver the same great taste and sensory experience their customers have come to expect from products containing full calories, fats and sugars.

84% OF AMERICANS STILL RANK **TASTE** **AS THEIR NO.1** PURCHASE DRIVER, FOLLOWED BY **PRICE** (71%) AND **HEALTHFULNESS** (64%)[3]

This report evaluates existing consumer perceptions of sweeteners and fibre solutions to help manufacturers develop optimal ingredient synergies that deliver against many consumer demands at once. The report evaluates consumer preference from the following countries: United States, Brazil, Mexico, Turkey, Saudi Arabia, United Kingdom, Germany, France, Russia, China and Japan.

INGREDIENTS CONSUMERS ARE LOOKING TO CONSUME LESS OF[2]



THE SUGAR LANDSCAPE

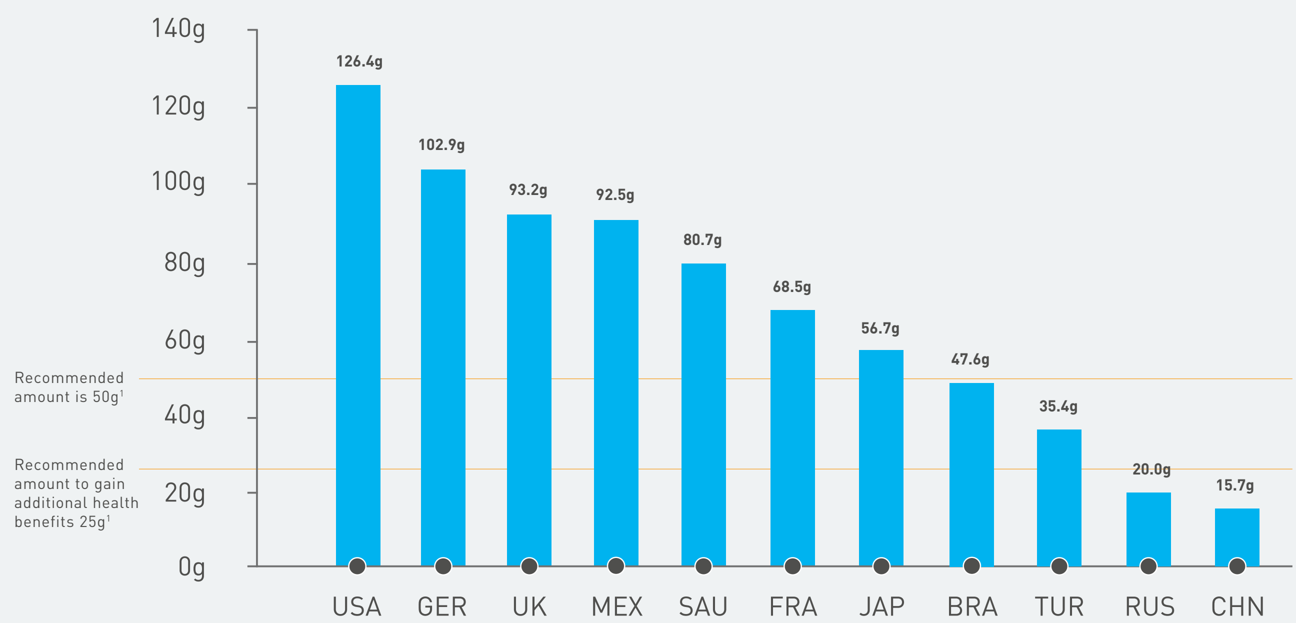
Across the globe, people are exceeding the recommended intake levels of sugar, which is 50 grams (or 12 teaspoons) of sugar per day.[1] In the United States, the average American consumes nearly two times the recommended amount, making it the country with the highest average sugar intake worldwide.

To encourage manufacturers to reduce the total amount of added sugars in foods and beverages, governments have passed various legislation, such as sugar taxes and required label changes. This has fueled an increase in negative perception among consumers, which has led to an increase in the negative perception of sugars.

56% OF CONSUMERS AGREE

A 'no added sugar' claim is either influential or **very influential on their purchase decisions.**[3]

AVERAGE DAILY SUGAR CONSUMPTION[4]



CONSUMERS' SWEETENER CONCERNS ACROSS THE GLOBE

UNITED STATES

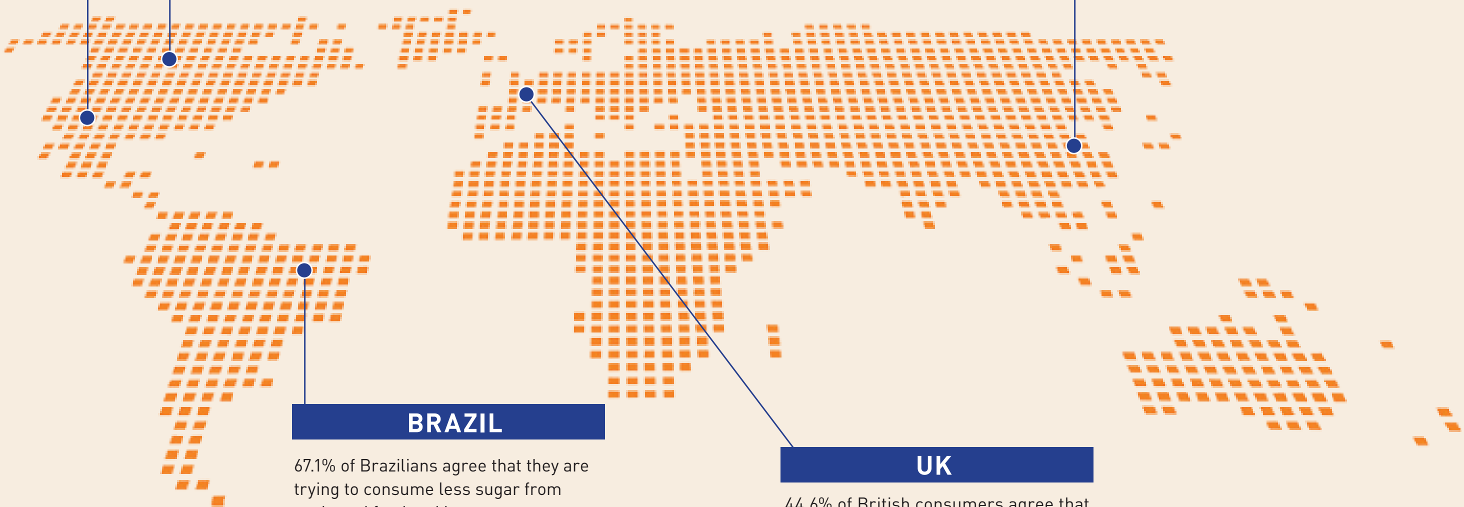
A recent study in the US found that 62% of Americans believe that sugar causes weight gain, 46% say it is high in calories, 36% perceive it to be unhealthy and 26% claim to worry about the health risks associated with it.[5]

UNITED STATES

The same study found that 59% of Americans agree that the primary reason they continue to consume sugar is because it does not have an artificial taste, whereas 56% say it helps satisfy a craving.[5]

CHINA

Countries in the Asia Pacific region seem much less concerned about sweeteners. Only 48.7% of Chinese consumers and a mere 30.5% of Japanese consumers agree that they are actively attempting to consume less sugar from packaged foods and beverages.[2]



BRAZIL

67.1% of Brazilians agree that they are trying to consume less sugar from packaged food and beverages. Additionally, 62.5% agree that a 'low sugar' claim is either influential or very influential on their food and beverage purchases.[2]

UK

44.6% of British consumers agree that a 'no added sugar' claim is either influential or very influential on their purchase decisions, and 45% are either influenced or very influenced by a 'sugar-free' claim.[2]

With the recent negative backlash against sugars, couldn't formulators simply replace all added sugar with a comparable, healthier ingredient? Yes, and no. Replacing sugars is never a one-to-one exchange for formulators. Selecting an alternative sweetening solution that appeals to the end user is just one piece of the puzzle. In addition to taste, sucrose, more commonly known as table sugar, provides many functional benefits in formulations, such as adding bulk and enhancing mouthfeel.

These attributes have to be recreated with other ingredients. While there are several ways to achieve this, only one set of ingredients in the food science toolkit enables manufacturers to appeal to the demand for added health benefits and to solve significant formulation challenges: fibres.

FIBRE:
MORE THAN DIGESTIVE HEALTH

In addition to their inherent digestive health benefits, fibres provide the functionality to help meet demand for many other trending health and wellness claims. For example, some fibres can aid in the rebalance of bulk and mouthfeel in reduced-sugar products. This unique mix of benefits and functionality makes fibres effective and easy-to-use ingredients for marketing 'better for you' products that appeal to consumer opinions and desires.

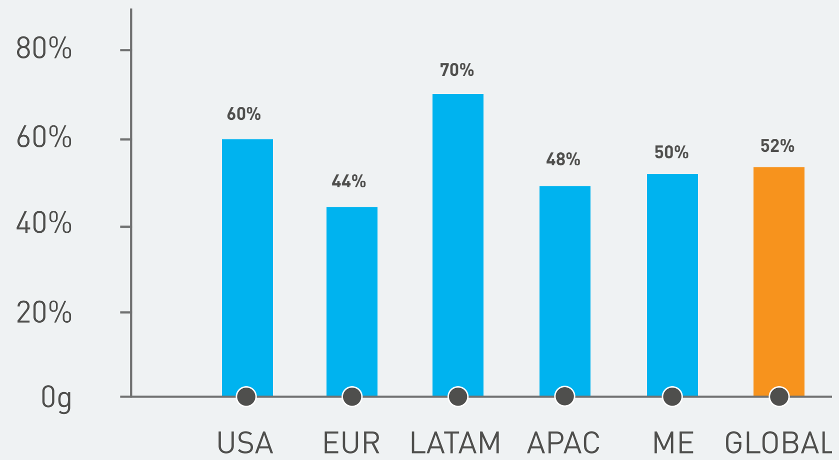
What's more, research shows that people are actively pursuing an increase in fibre intake.[2] The interest level and drivers vary by region and by age. For example, the desire for more fibre is strongest among US and Latin American consumers. When asked why they were attracted to foods and beverages with more fibre, respondents noted, 'digestive health', 'healthy diet', 'regularity' and 'full for longer'.

Millennials are more focused on consuming fibre for weight management, whereas baby boomers are consuming fibre for regularity purposes.[2]

However, while many people acknowledge the added health benefits of fibre, only 25% of consumers around the world report daily consumption of fibre.[2]

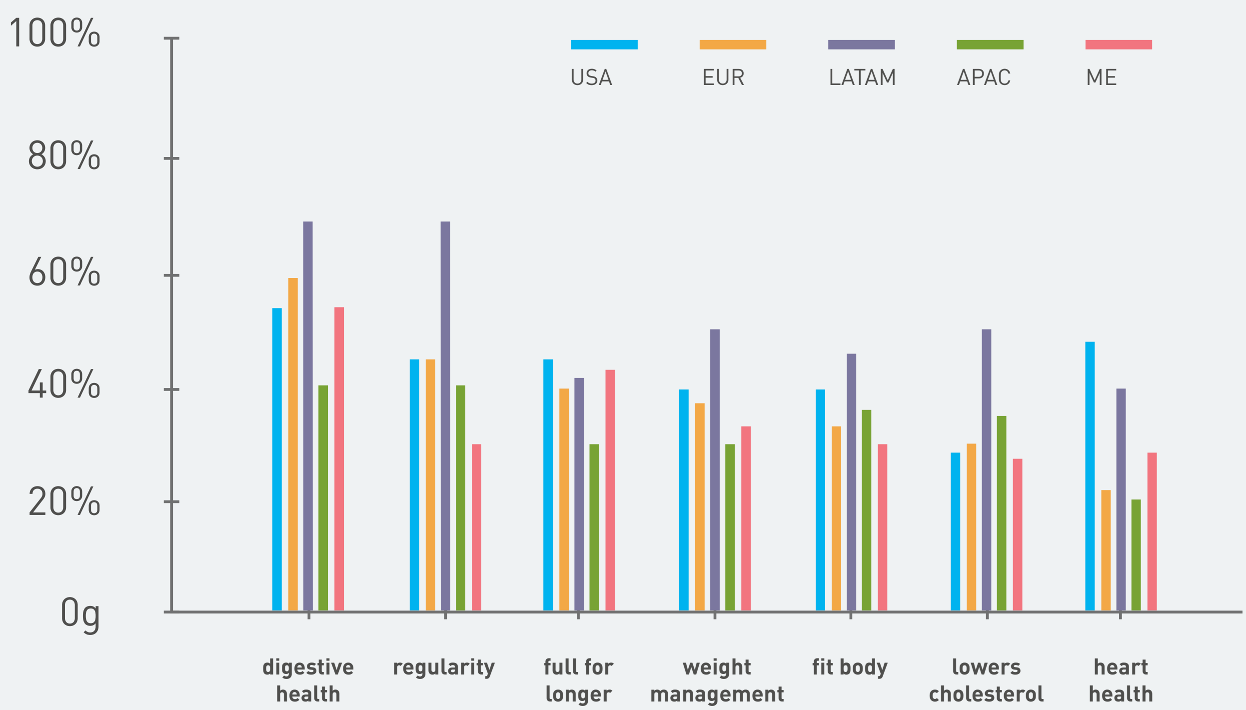
Because consumers' fibre consumption is insufficient, many fall short of the daily recommended intake of 25-34 grams of fibre per day.[6] Consumers want to consume more products with fibre, but struggle to find them. In fact, 33% of consumers claim they are not eating more fibre, because not enough products with fibre are available on the market.[2]

CONSUMERS DESIRE TO CONSUME MORE FIBRE[2]



This finding poses an opportunity for manufacturers to introduce more affordable fibre-fortified products to market. Understanding the unique consumer preferences per region around fibre sources and preferred fibre-fortified products can help manufacturers deliver on consumer demand.

REASONS FOR FIBRE CONSUMPTION[2]

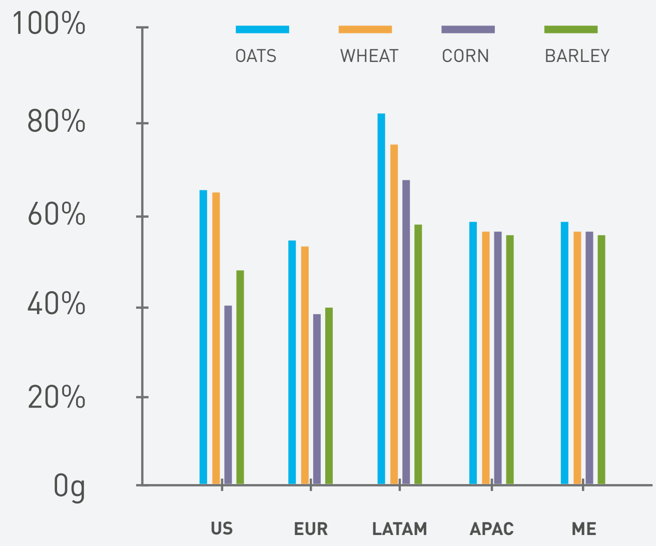


CONSUMER PREFERENCES:
OATS LEAD THE WAY

Recent data illustrates clear consumer preference for recognisable fibre ingredients. Oat fibre and soluble corn fibre are among the preferred fibre ingredient names to see on labels. For example, 66% of people are favorable towards seeing oat fibre on the label and 47% for soluble corn fibre.[2]

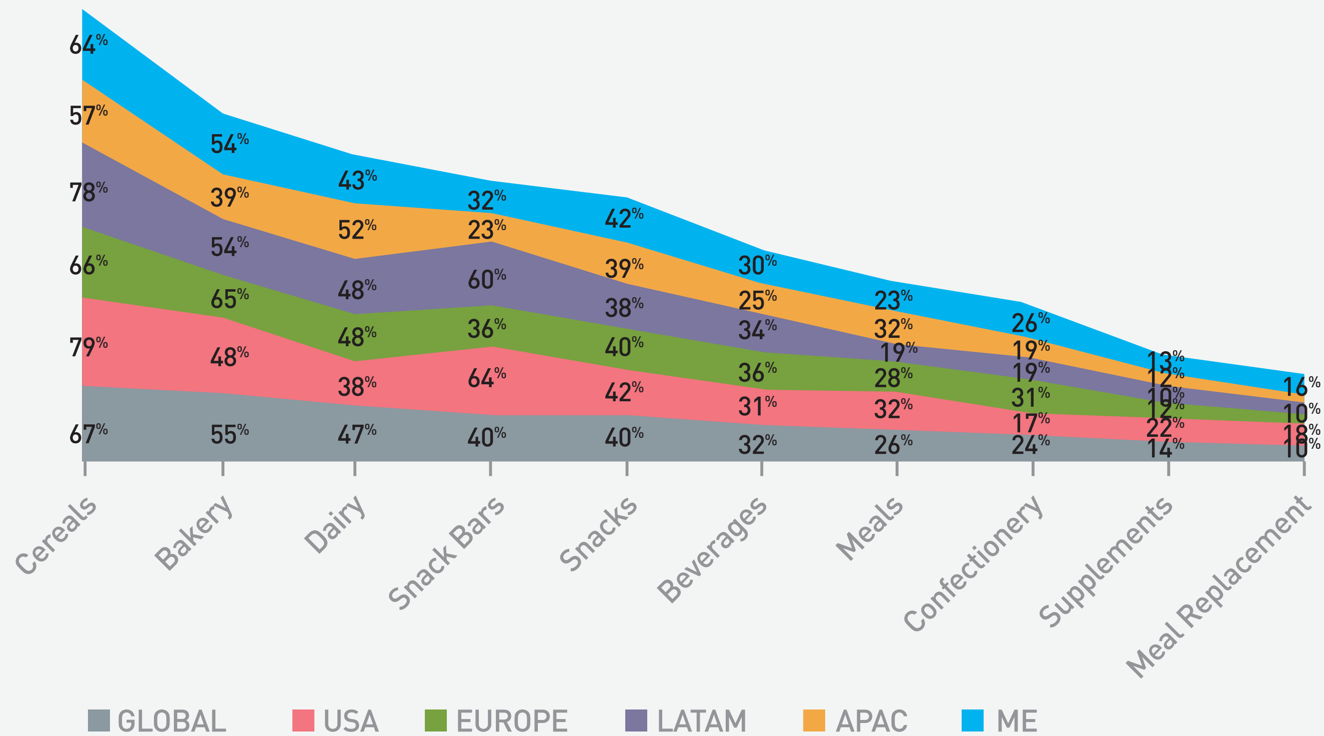
Desired preference for fibre sources varies by region as well. Most regions prefer oat, wheat, corn or barley as fibre sources. Other sources of fibres, such as mushrooms and peas, are trending more in Asia Pacific regions than anywhere else across the globe.

CONSUMER PREFERENCE FOR TOP 4 FIBRE SOURCES PER REGION[2]



As people try to reach their recommended daily intake of fibre, they look to specific food and beverage categories to fill the gap. For example, an average of 68% of global consumers say they obtain fibre through cereals, 53% through baked goods and 45% through dairy.[2] Despite this, people struggle to consume the recommended daily fibre intake from a typical diet. For this reason, many consumers would benefit from having more fibre-fortified food and beverages to choose from in the grocery aisles to help them reach their health and wellness goals.

KEY FOOD AND BEVERAGE CATEGORIES AS SOURCE OF FIBRE[2]



Food and beverage marketers should also understand which health and wellness claims appeal the most to the audiences in their regions to inform fibre selections for product formulations. For example, 'heart health,' 'digestive health' and 'lowers cholesterol' are the claims on labels that resonate the most with consumers in Latin America, the region with the largest desire to increase daily fibre intake.[2]

PARTNER:
FOR THE PERFECT SOLUTION

Fibre can address at least two significant consumer needs – sugar reduction and fibre enrichment. However, formulating 'better for you' products without sacrificing consumer acceptance often requires more than one ingredient solution.

For example, when reducing sucrose in formulations, one of the greatest obstacles often lies in delivering the same satisfying sensory experience that consumers know and love. Reducing sucrose can affect mouthfeel, bulk, texture, browning and more. Soluble fibres can effectively replace body and mouthfeel and be combined with sweetening solutions such as stevia, sucralose, allulose and fructose to compensate for lost sweetness.

Selecting the right fibre ingredient can be simple if you take into consideration **The Five C's:**

Consumer Sentiment – Fibres with exceptional solubility, a clean taste, neutral colour and texture without grittiness will increase overall consumer acceptance of finished products.

Digestive Comfort – Manufacturers are challenged to deliver the enhanced nutrition benefits of fibre that consumers demand, but some fibres, particularly at high inclusion levels, can cause digestive discomfort.

Clean Labels – Depending on your target audience, selecting a fibre that offers consumer-friendly labelling options may provide additional appeal needed to boost product sales.

Nutritional Claims – As mentioned previously, fibres can help food and beverage manufacturers achieve valuable front-of-pack fibre claims. Their inherent nutritional benefits mixed with versatile functional benefits make a variety of claims possible.

Cost in Use – When formulating with some fibres that lack stability, manufacturers have to overcompensate for fibre lost due to high heat and shear during processing, acid in low-pH systems and long shelf life. Choosing a fibre with superior stability can result in manufacturing efficiencies.

Partnering with an ingredient provider that has a broad portfolio of options, and taking a holistic approach to formulating, can help food and beverage manufacturers find a better way to meet the needs of their consumers. As a global provider of distinctive, high-quality ingredient portfolios, and formulation expertise, Tate & Lyle is well positioned to partner in the development of tailor-made solutions. To learn more about Tate & Lyle's fibre and sweetener portfolios, visit **www.tateandlyle.com.**

MAKING FOOD
EXTRAORDINARY
TATE & LYLE
SINCE 1859

Sources

[1] World Health Organization (obesity and overweight fact sheet updated June 2016).
[2] Internal research for Tate & Lyle conducted by Qualtrics; 8,800 global respondents (800 per country), 2015 (Turkey and Saudi Arabia 2016).
[3] Nielsen Global Survey of Food Labeling Trends, March/April 2011.
[4] Euromonitor, via Roberto A. Ferdman, *Washington Post*, 'Where people eat the most sugar and fat.' https://www.washingtonpost.com/news/wonk/wp/2015/02/05/where-people-around-the-world-eat-the-most-sugar-and-fat/?utm_term=.20869087efdc.
[5] Internal research for Tate & Lyle conducted by Ipsos; 1,102 consumers surveyed in the United States (2015).
[6] Dietary Guidelines for Americans 2015-2020.

TATE & LYLE

HWG0517093