PREBIOTICS

READY FOR PRIMETIME

PreneXus Health®

Leading the Future of Prebiotics

PREBIOTICS
READY FOR PRIMETIME

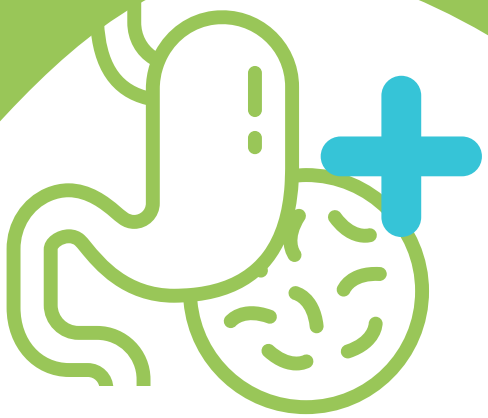
Now that the majority of consumers are aware of the importance of digestive health and those good bugs, probiotics, they're ready for the prequel–prebiotics.

Thanks to new research and savvy media, the word is getting out about these compounds that are necessary for digestive health, and for probiotics to even work. This growing awareness means growing demand for innovative, safe and effective prebiotic options. Fortunately, the next generation of prebiotic ingredients is paving the way for this niche market to go mainstream with exciting offerings in food, beverage and supplements.

DIGESTIVE HEALTH MARKET STILL BOOMING

With as many as 70 million Americans affected by impaired digestion ranging from chronic constipation to inflammatory bowel disease, it's no surprise that the digestive health market is booming.[1] As science continues to unveil the expansive role the gut plays in overall health, including immunity, depression, and even sleep problems, the quest for optimizing digestive health will continue to expand at a fast clip.

The global digestive health products market is expected to grow from $31 Billion in 2017 to 59 Billion by 2025.[2]



What started out as a probiotic yogurt and dairy segment 15 years ago has expanded to thousands of SKUs in virtually every aisle of the grocery store and includes not just probiotics, but increasingly, prebiotics as well. Over the past few years, compelling science has pushed the vital role prebiotics play in promoting good gut health into the mainstream. With consumer awareness already primed by the robust probiotic market, the landscape is fertile for quick adoption of prebiotics in foods, beverages and supplements.

The global prebiotics market is expected to generate around $7.9 billion by 2025,[3] indicating that there is significant demand for innovative, convenient food, beverage and dietary supplement SKUs with digestive health advantages. To capitalize on this rapidly growing market, it is critical for manufacturers to understand the often-nuanced needs and demands of consumers and to offer effective, science-backed, safe and clean products.

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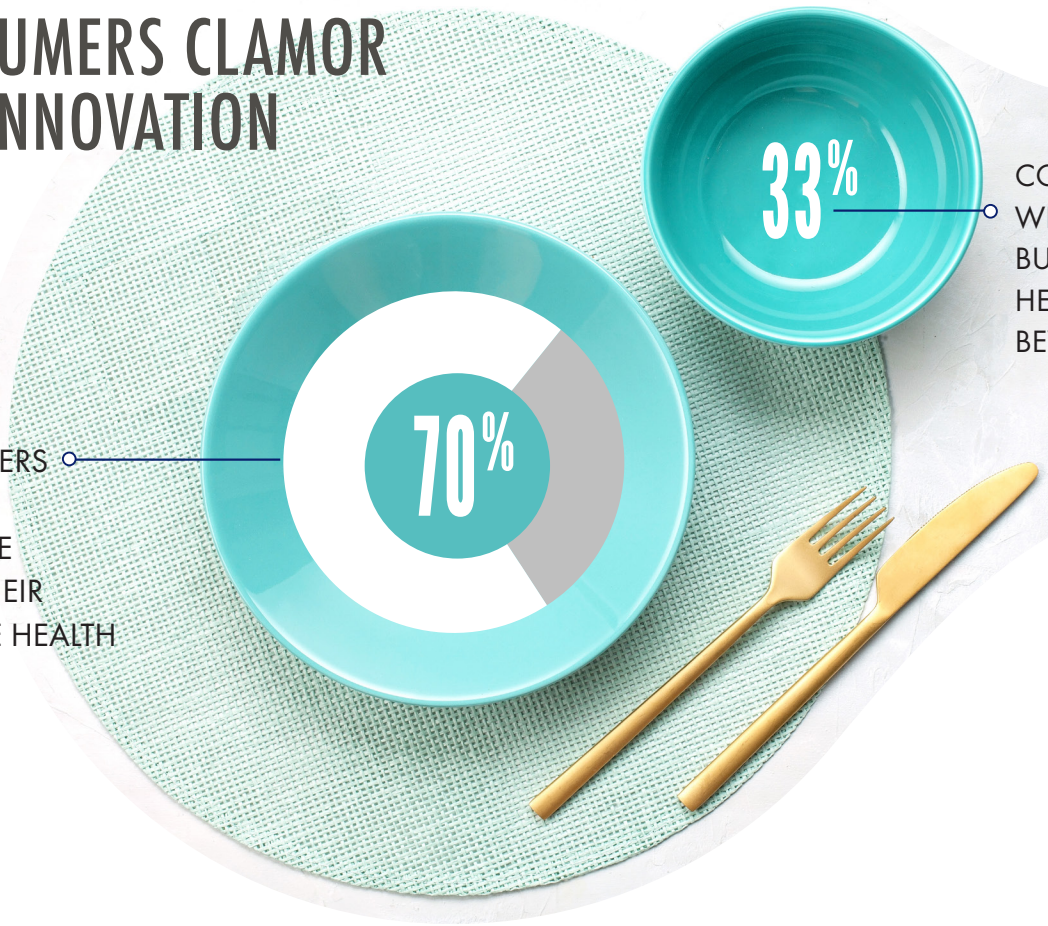
CONSUMERS CLAMOR FOR INNOVATION



A whopping 70 percent of consumers are proactive about their digestive health and 37 percent are aware of the importance of the gut microbiome in overall health. Data from the Natural Marketing Institute shows that a third of the population (33 percent) would be more likely to purchase a food/beverage product if they thought it would help support their digestive system and 1 out of 4 would be more likely to buy a food/beverage product if it optimized their gut health. Most dietary supplement users have a high awareness of prebiotics and as with probiotics and fiber, they are willing to purchase and use them regularly.[4,5] Clearly the market is well poised for innovative SKUs offering prebiotics throughout the grocery store.

{ Most dietary supplement users have a high awareness of prebiotics....and are willing to purchase them regularly.

PREBIOTICS DEFINED

The International Scientific Association for Probiotics and Prebiotics, (ISAPP) defines prebiotics as *"a substrate that is selectively utilized by host microorganisms, conferring a health benefit"*.[6]

Prebiotics are acted on and utilized by bacteria in the gut. Commonly available prebiotics are inulin, fructo-oligosaccharides (FOS), galacto-oligosaccharides (GOS) and an emerging star, xylo-oligosaccharide (XOS), which has demonstrated benefits over other types of prebiotics.

The physiological benefit of a prebiotic can vary depending on the type of prebiotic and the groups of beneficial bacteria it is utilized by (i.e. *Bifidobacterium*, *Lactobacillus*, etc.). In other words, different prebiotic types stimulate different genera of bacteria in the gut.

INULIN

FOS
FRUCTO-OLIGOSACCHARIDES

GOS
GALACTO-OLIGOSACCHARIDES

XOS
XYLO-OLIGOSACCHARIDE

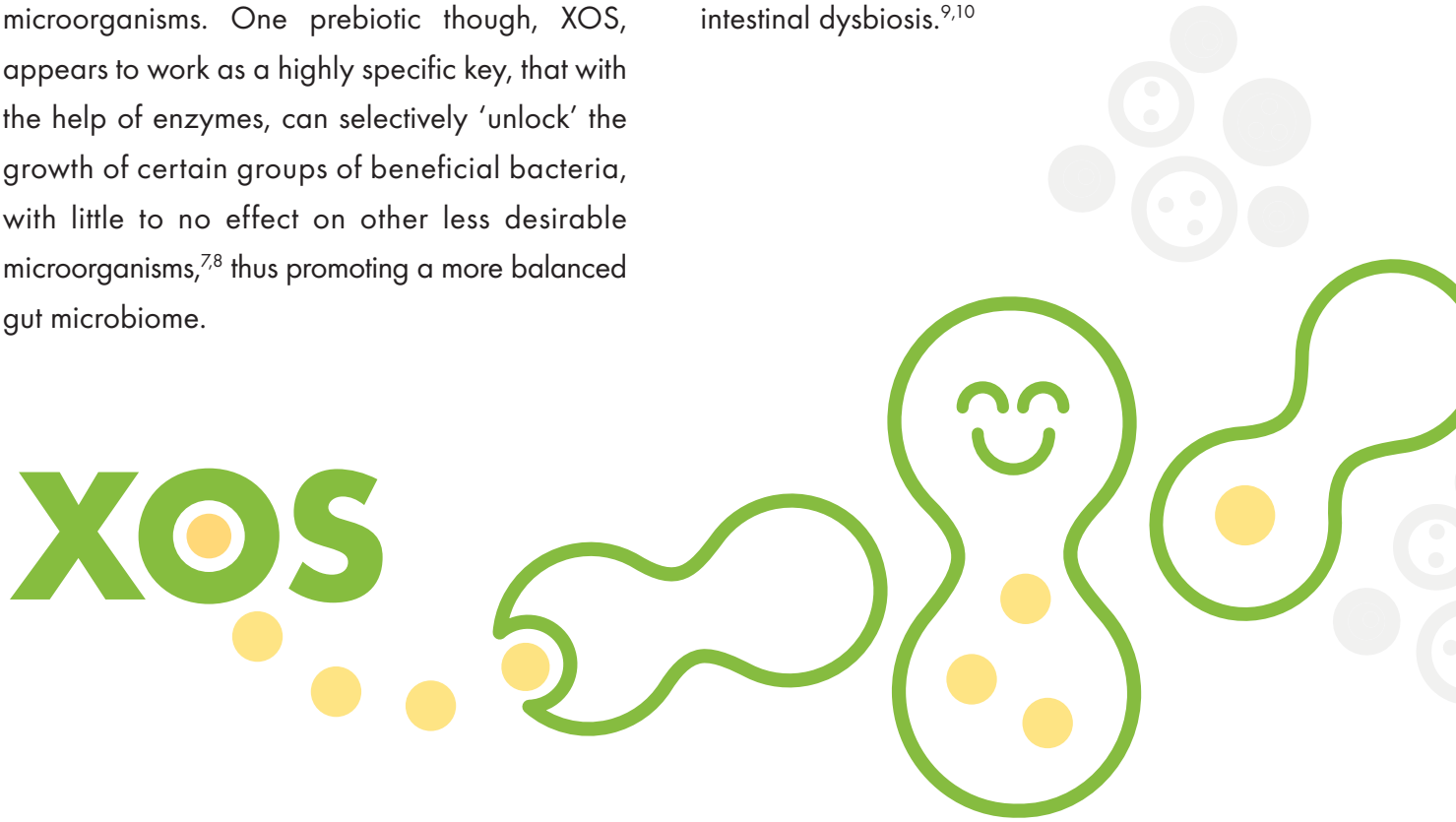
Prebiotics feed bacteria in the gut which stimulate bacterial growth and other beneficial metabolites necessary for gut health.

A prebiotic's focus should be to selectively feed beneficial bacteria to promote optimal gut health benefits.

SELECTIVITY KEY TO PREBIOTIC BENEFITS

Prebiotics promote the growth of a variety of gut bacteria, working together much like a lock and key. The structure and chemistry of a specific prebiotic (the key) 'fits' with certain friendly bacteria (the lock), working in concert to yield a variety of health benefits. Some prebiotics act as a food source for many types of bacteria and may ultimately enhance the growth of less desirable microorganisms. One prebiotic though, XOS, appears to work as a highly specific key, that with the help of enzymes, can selectively 'unlock' the growth of certain groups of beneficial bacteria, with little to no effect on other less desirable microorganisms,[7,8] thus promoting a more balanced gut microbiome.

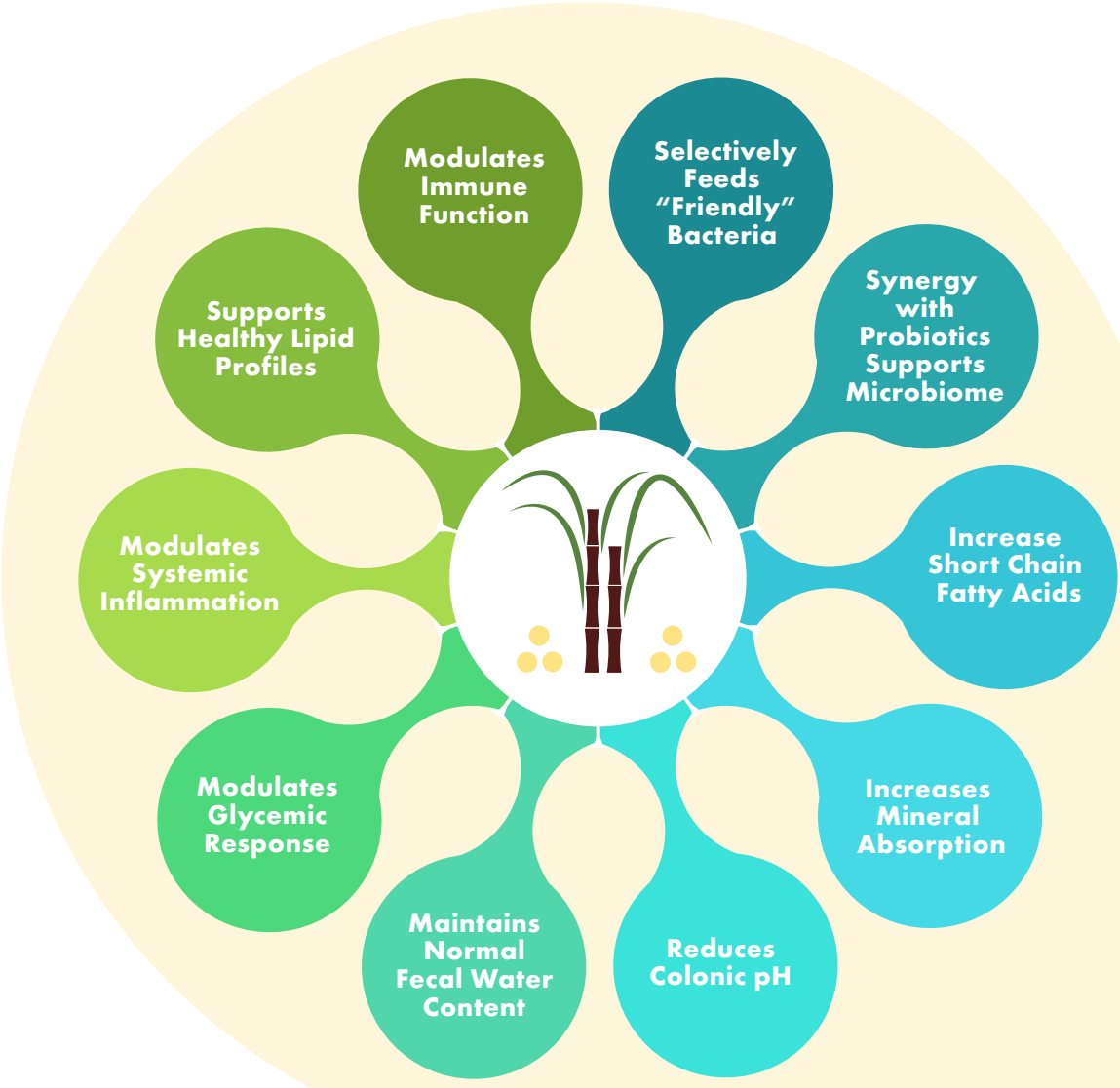
Other prebiotic types, such as inulin and galacto-oligosaccharides, are more readily utilized by many species of both friendly and unfriendly bacteria. Prebiotics like inulin and galacto-oligosaccharides may not selectively support the growth of beneficial bacteria and may enhance growth of undesirable bacteria species as well, which can ultimately result in intestinal dysbiosis.[9,10]



One clinically studied form of XOS that offers unique selectivity and lower usage requirements is **XOS95®**, made by Prenexus Health in Arizona.

PREBIOTICS TOP 10 HEALTH BENEFITS

Research has demonstrated that XOS are readily utilized by friendly gut bacterial to increase short chain fatty acid (SCFA) production. Increased production of SCFA may decrease intestinal pH to create an environment favorable to friendly bacterial species in the *Lactobacillus* and *Bifidobacterium* groups and improve overall digestive and intestinal health. XOS intake also appears to modulate the glycemic response and promote satiety, support healthy weight management, modulate systemic inflammation, improve certain aspects of the lipid profile and in conjunction with *Bifidobacterium animalis*, has been shown to modulate markers of immune function in healthy adults.[12-19]



THE ONLY PREBIOTIC FOR TODAY'S MICROBIOME

XOS95®

XOS95 is a prebiotic powder that offers many health and formulation advantages. Derived naturally from non-GMO and organic high-fiber sugarcane grown in California, XOS95 Prebiotic has been shown to support the growth of beneficial bacteria, such as *Bifidobacterium* and *Lactobacillus*.

1 Gram/Day
Selectivity
Shelf Stable
Easy to Formulate
Neutral Taste
Well Tolerated

XOS95's unique molecular structure allows this symbiosis while providing little to no support for the growth of certain unfriendly microbes. Additionally, these specific groups of friendly bacteria are able to utilize XOS as a nutrient, allowing them to increase short chain fatty acid production and ultimately improve overall gut health.[10] Due to this selectivity, a low-level serving [**1.0 g/day**] of XOS95 Prebiotic can be utilized, thus minimizing side effects of bloating and gas associated with larger levels of other prebiotic types.

XOS95®

POSITIONED FOR CONSUMER DEMANDS

Clean Label

XOS95 **is the only** organically farmed and US-produced, non-GMO, XOS prebiotic on the market.

US Grown and Manufactured

The organic sugar cane used to make XOS95 is sustainably farmed in the United States in California's Imperial Valley, and made in Prenexus's state-of-the-art manufacturing facility in Gilbert, Arizona.

Supported by Research

The health benefits of xylo-oligosaccharides have been studied in more than a dozen clinical trials to date and are mainly focused on gastrointestinal health. Other studies have indicated a benefit in improving lipid panels, modulating systemic inflammation, and supporting a healthy immune response.

Selectivity

Due to its high degree of selectivity for certain friendly bacteria, the recommended efficacious level for XOS95 is only 1 gram daily. This is much lower than other types of prebiotics that require high daily intakes of 5 - 40 grams for therapeutic efficacy.

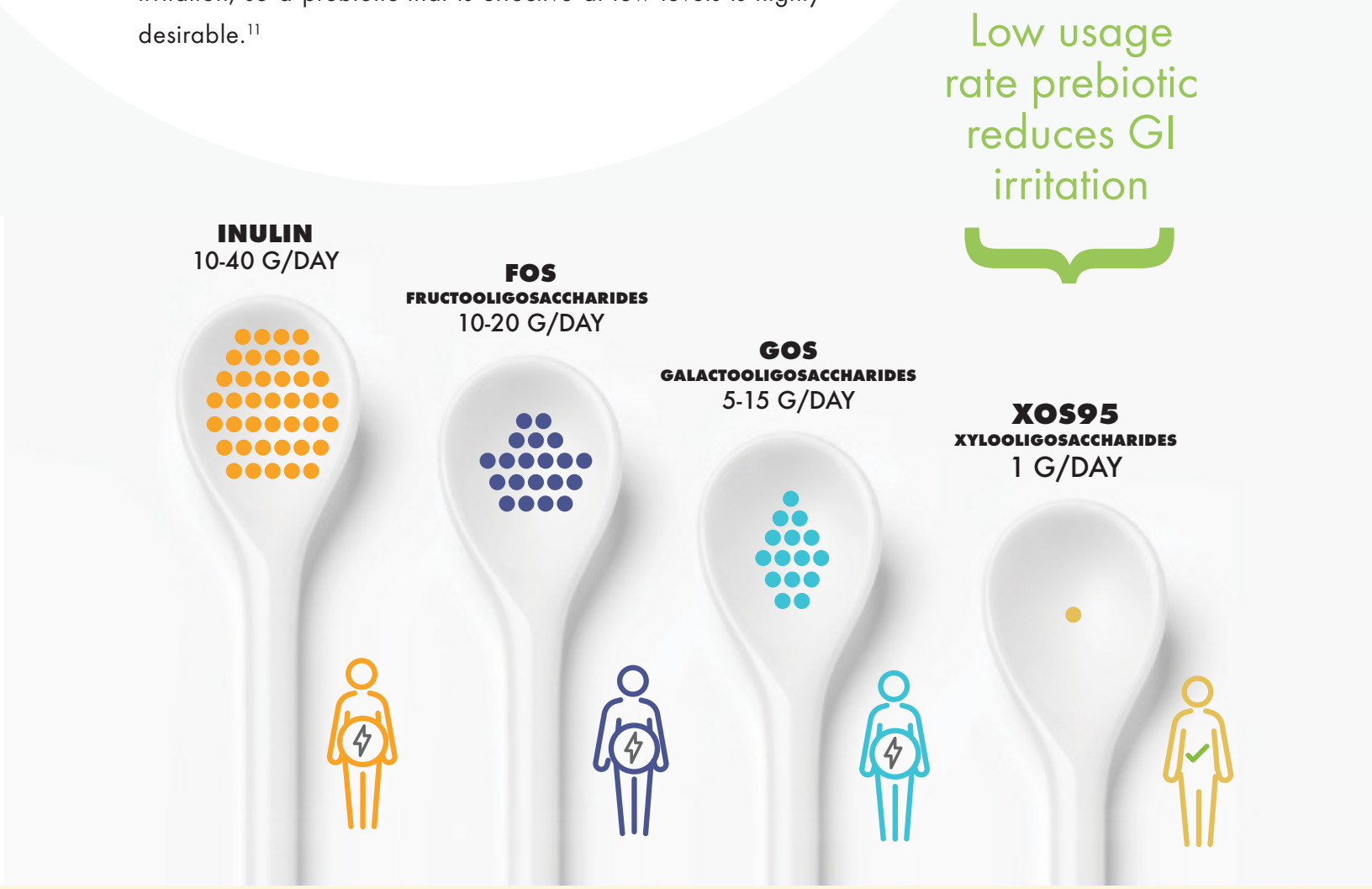
Neutral Taste + Easy Formula Integration

XOS95's neutral taste, palatability, and high solubility allow for easy integration into a variety of functional foods, beverages, and dietary supplement delivery formats.

XOS95®

THE 1 GRAM ADVANTAGE

Most prebiotics require significant daily usage levels of 5 to 40 grams to derive maximum benefit. This can be challenging for many people to consume, as it can cause gas, bloating and GI irritation, so a prebiotic that is effective at low levels is highly desirable.[11]

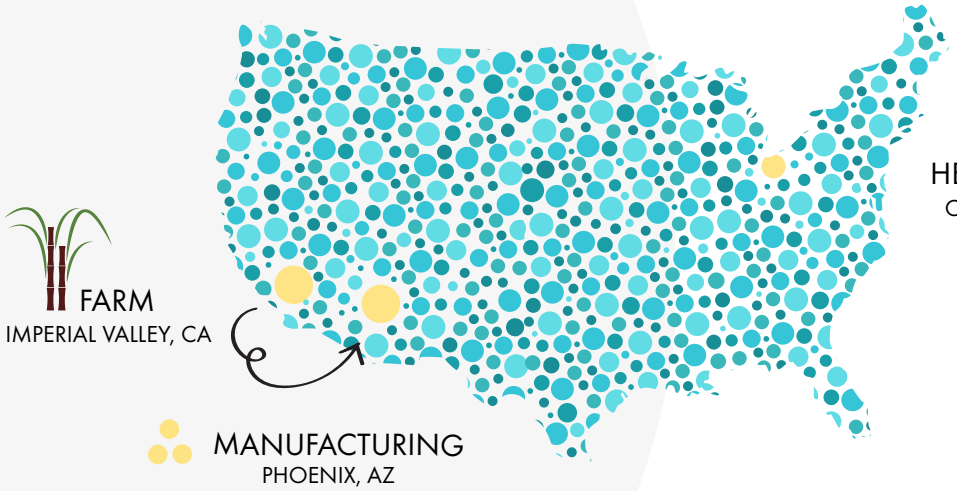


With an effective level of only 1 gram daily, XOS95 has significant therapeutic benefit, is well tolerated and not associated with the gas, bloating, or gastrointestinal irritation often observed with higher intakes of prebiotics.

XOS95®

VERTICALLY INTEGRATED FROM FARM TO SHELF

XOS95 is organic, non-GMO cane sustainably grown in California's Imperial Valley by farmers who are part of the Prenexus Health team. The sugar cane is then processed without chemicals, using only water, in Prenexus' state-of-the art manufacturing facility in Gilbert, Arizona. This vertically integrated, organic supply chain ensures the manufacture of the highest quality, clean-label prebiotic available on the market. Prenexus Health's XOS95 is certified organic, non-GMO, vegan, vegetarian, Halal and is allergen-free.



XOS95®

ENDLESS FUNCTIONAL FOOD POSSIBILITIES

Adding a prebiotic to food, beverage, pet, and supplement products allows manufacturers to capitalize on the growing number of consumers looking for functional foods to promote optimal health. XOS95 Prebiotic's properties and its low inclusion requirement allow for easy integration into a variety of formulations and delivery formats with expanded health benefits such as the following examples.

- **Targeted gut-health symbiotic supplement with XOS95 Prebiotic and select strains of *Bifidobacterium* or *Lactobacillus***
- **Sports nutrition prebiotic-electrolyte drink in stick packs**
- **XOS95 prebiotic added to dairy or non-dairy yogurt transforms a digestion star into a superstar**
- **Prebiotic low-sugar juice box, snack bars will appeal to health-conscious parents**
- **Gourmet cat and dog food with pre-and-probiotics for the growing custom pet food category**

Neutral taste
Palatable
High Solubility
Shelf Stable
(foods an beverages)

XOS95® Prebiotic

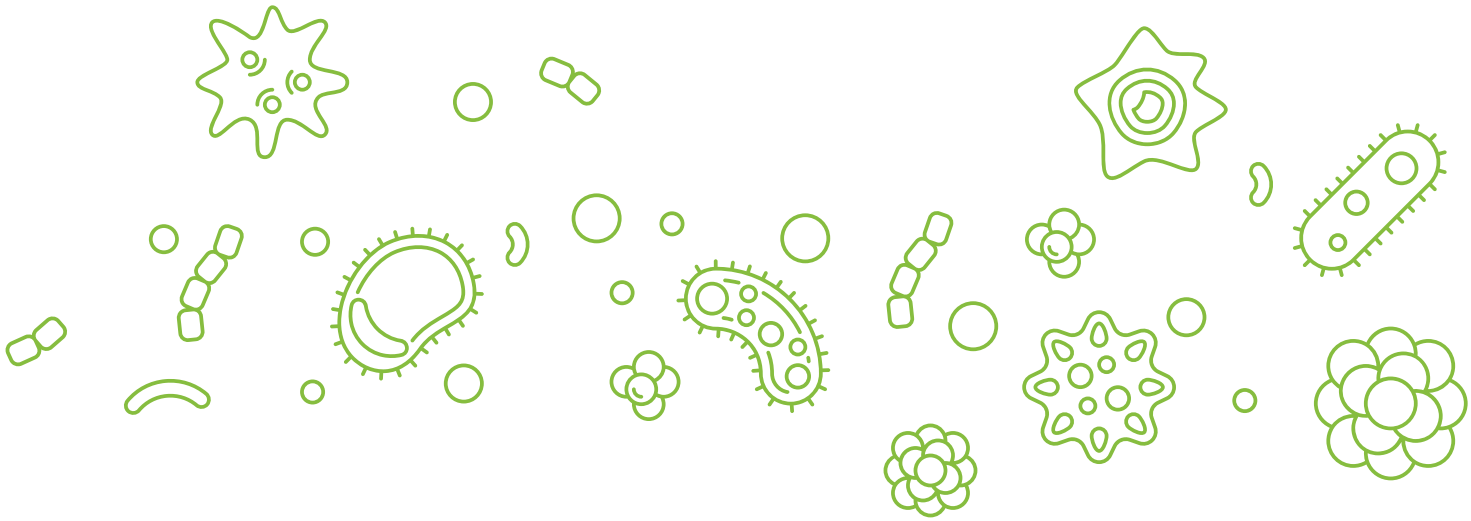
Request a Sample of XOS95 Today!

EMAIL US AT
info@prenexushealth.com

Looking for more info on prebiotics?

prebiotics.com

A consumer-facing website powered by Prenexus Health designed to educate and promote awareness about prebiotics.



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