



Pectin advancements spur new consumer-friendly product innovations

When shoppers see pectin on an ingredient label, they may be flooded with memories of their Grandmother's sweet strawberry jam. But this versatile ingredient has changed drastically over the past decade.

Thanks to recent innovations, pectin use has moved beyond high-sugar jams and jellies. This versatile, plant-derived ingredient is an excellent thickener, gelling agent and stabilizer, even in low-sugar applications. As Cargill hydrocolloid expert Jaime Underwood explains, today's pectins are helping manufacturers bring new consumer-pleasing products to market.

What's new in pectin

Pectin, a soluble gelatinous polysaccharide, is found in berries, apples and other fruits. Today, it is generally sourced from citrus peel rinds and apple pomace.

Cargill's pectin portfolio reflects this familiar ingredient's evolution. "The technology has really blossomed," explains Underwood. "Our ability to extract the pectin from citrus fruits has come leaps and bounds in the last 10 years. And now we're able to manipulate the structure of pectin, both physically and chemically, to better target stability and gelling. It's very exciting."

These discoveries have led to exciting product innovations which appeal to today's discriminating and health-conscious consumer. "Not that long ago, there were few options. But these recent advancements have opened the door for using pectins in new types of beverages and desserts," said Underwood.

Consumer-pleasing dairy and fermented beverages

Today's pectin technology makes possible many consumer-pleasing beverages, such as drinkable yogurts, milk-juice blends, low-pH dairy beverages and fermented drinks. According to Underwood, "Yogurt beverages wouldn't exist without pectin. Four or five years ago you couldn't create a stable, low-pH dairy beverage that wouldn't curdle."

Pectin is also being used in dairy-free fermented beverages such as kombucha. The market for this probiotic-rich cultured beverage is expected to grow from \$600 million in 2015 to \$1.8 billion by 2020.²

This new generation of beverages appeals to consumers' desire for healthfulness and convenience. According to Mintel, 43 percent of Americans agree that living a modern lifestyle makes it very difficult to be healthy.¹

Reduced-sugar application

Historically, pectin required large amounts of sugar to work properly. The sugar attracts some of the water, helping the pectin develop a gel of ideal consistency and texture. Health experts, however, are encouraging consumers to reduce their sugar consumption. In response, many food manufacturers are reformulating high-sugar products.

Cargill's pectin experts can help manufacturers reduce their sugar use. "The different types of pectin in our portfolio help us to cut sugars in not just jams and jellies but also pastry fillings, gels and other applications," explains Underwood.

continued



Pectin can also help produce consumer-friendly, reduced-sugar beverages. “Adding pectin to diet sodas can provide a more pleasing mouthfeel. Beyond carbonated soft drinks, pectin can also be used in low-calorie teas and fruit juices. It can stabilize the pulp and provide good mouthfeel.”

Vegan vitamins, fruit snacks and confections

Pectin can also be combined with label-friendly starches to replace gelatin in gummy vitamins and fruit snacks. Cargill offers pectin options that can tolerate the high temperatures used in these applications. Pectin also offers a shorter texture than gelatin which helps deliver a desirable texture, bite and flavor.

The Cargill pectin portfolio also has options ideal for shelf-stable fillings and gels used in confections such as biscuits and pastries. Using pectin in coatings can help prevent syneresis, or weeping, which may happen during freeze-thaw cycles.

Cargill experts are also evaluating additional uses, such as label-friendly meat options. “We’re looking at other applications because pectin is a great plant-based stabilizer. We’re always trying to push the boundaries,” explains Underwood.

For more information on label-friendly ingredients, contact us at **1-877-SOL-UTNS (765-8867)** or <https://www.cargill.com/labelfriendly>

¹Mintel *Healthy Lifestyles US 2015*

²MarketsandMarkets, 2015