



Cargill's pectin experts
help food formulators address
confectionery challenges

Technical advancements in pectin – as well as consumer's interest in label-friendly and reduced-sugar products – have encouraged more manufacturers to include this fruit-derived thickener and gelling agent in product formulations. This versatile hydrocolloid may no longer need a large amount of sugar to set properly, but it still can be a challenge to work with if you're not familiar with its properties. With assistance, however, manufacturers are finding that pectin can address their biggest confectionery challenges.

Cargill technical experts, Wen-Juin Shieh and Jaime Underwood, help food formulators use pectin in confectionery products as well as beverages, fruit products and convenience foods. Shieh, a technical lead for fruits, beverages and confections, and Underwood, a hydrocolloid expert, partner with manufacturers to formulate products and set processing standards. Thanks to their years of experience, they can develop specific formulas to work within a variety of challenging parameters and conditions.

Fruit snacks and gummies

Pectin has been a component of some fruit snacks and gummies for years. Many consumers prefer snacks made with fruit-based pectin instead of animal-sourced gelatin. They may also prefer the clean flavor release and short texture that a pectin-based gummy provides.

Cargill's pectin experts help manufacturers determine setting and processing parameters for the desired end product. "Sometimes you want to set up more quickly, for example if you want a liquid center," said Shieh. "But setting up too fast may result in pre-gelling and problems during depositing."

Gummy vitamins are becoming more popular

According to IBISWorld, gummy products now account for \$1 billion of the \$41 billion supplement market in the United States. This is a more than 25 percent jump in sales since 2015.¹ According to Shieh, these gummy supplements can be tricky to produce. "It's critical to have pH control when working with pectin. Some of these active ingredients, however, are very sensitive to pH changes." Cargill experts may include buffers in formulas, explained Underwood. "We use our experience to develop a solution for each specific application."

Cargill also helps manufacturers develop formulas for use with a starchless mogul system. This starchless mogul system helps manufacturers produce supplements with more precise weights while avoiding cross-contamination.

Underwood and Shieh explained that another benefit of pectin-based gummies is that they are easier to dispense. Pectin has a higher melting point than gelatin, reducing the risk of the gummy vitamins melting and sticking together.

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¹ IBISWorld. Vitamin & Supplement Manufacturing in the US: Market Research Report. March 2017
<https://www.nytimes.com/2017/02/28/well/eat/vitamins-gone-gummy.html>