

'Moo've over, yogurt

A new creamy protein-rich dairy drink has Kansas State University success written all over it.

Three Kansas State University food science graduate students — Yuda Ou, China, and Priyamvada Thorakkattu and Karthik Sajith Babu, both from India — were awarded first place and \$8,000 in the National Dairy Council's annual New Product Competition for Quick-Quark, a new drinkable dairy snack based on the German-style quark cheese.

"Quick-Quark's texture is very smooth and creamy," Ou said. "It has a rich mouthfeel comparable to a full-fat yogurt. Our product has 14 grams of protein in a 150-gram serving, which is almost double the amount of popular Greek yogurt drinks and more than double the number of popular yogurts targeted toward children."

The students — working in the university's Food Science Institute — mixed whole milk, cream, milk protein concentrate and sweetened condensed milk, then fermented the ingredients with live cultures to produce a mildly tart quark base with 30 percent daily value of calcium and 10 percent daily value of vitamin D.

"The students worked effectively as a team, putting in many long hours to develop a unique product and went the extra mile by perfecting two flavors of Quick-Quark for the judges to critique," said Kelly Getty, associate professor of animal sciences and industry and team co-adviser.

In a resealable pouch with a 30-day shelf life, Quick-Quark combines natural dairy ingredients with live cultures, which help aid digestion. Using real fruit, the students developed two different flavors: pina colada and acai blueberry, which has a distinct Kansas State University purple.

"Both flavors performed very well," Ou said. "We asked 50 consumers in the age range of 17-55 to taste both products and rate on a 9-point scale with 1 meaning they disliked it extremely and 9 meaning they liked it extremely. Acai blueberry received an average of 7.5 and pina colada received 7.3 for liking the overall product."

According to the National Dairy Council, snack foods are more common now than in the past and have replaced meals in some people's diets, which is why the 2018 competition challenged students to develop tasty, nourishing and filling

on-the-go snacks. Ou, Thorakkattu and Sajith Babu developed their core concept for Quick-Quark with those criteria in mind but also wanted a product that was easy to market.

"The students wanted to develop a product that was not too familiar to consumers but has an appeal that will give it more visibility," said Jayendra Amamcharla, associate professor of animal sciences and industry and team co-adviser. "I think Quick-Quark will be the next Greek yogurt. In 2007, Greek yogurt wasn't popular in the United States, but now it's approximately 40 percent of the total yogurt sales."

The product isn't available in stores yet but the students are looking for the right opportunity to start marketing Quick-Quark. Randy Phebus, Food Science Institute interim director, said the first-place win will help give the students many opportunities.

"This win continues a strong tradition of success that our K-State product development teams have experienced in national and international competitions over the last several years, and we are very proud of this year's team win," Phebus said. "These experiences and successes open many career doors for our food science students across the global food industry."