Top 10 Tips from Cal Poly Dairy Ingredients Symposium

SAN LUIS OBISPO – Some 100 participants from 17 states gathered along California’s Central Coast to hear the latest on dairy ingredients at the seventh annual Cal Poly Concentrated and Dried Dairy Ingredients Symposium in February.

The two-day short course was held at the Cliffs Hotel in Shell Beach overlooking the Central Coast. The presentations centered on opportunity, growth, and meeting consumer needs for dairy ingredients.

Here are the “Top 10” take-home messages from this year’s symposium, compiled by Cal Poly Dairy Products and Technology Center Director Phillip Tong:

1. Available tools for protein standardization can improve the consistency of the functional properties of skim milk powder for many food applications in a cost-effective way. (Details: Phil Tong, ptong@calpoly.edu)

2. Milk and dairy ingredients are desirable nutrient delivery systems that meet critical domestic and international micronutrient needs. (Details: Lindsay Allen lallen@ucdavis.edu and Ramesh Chaudri ramc@fortitech.com)

3. Whey powder properties can be improved by careful control of precursors to undesirable compounds that can impact whey powder quality. Quality depends upon more than just the final pH, but on other factors including pH of whey before processing. (Details: Scott Rankin srankin@wisc.edu and Lisbeth Goddik lisbeth.goddik@oregonstate.edu.)

4. Extrusion processing is a technology that can texturize whey proteins and modify functional properties for new food applications. (Details: Charles Onwulata Conwulata@errc.ars.usda.gov)

5. Advances in molecular biology of milk and milk synthesis provide
a window into the near future of new dairy ingredients. (Details: Rafael Jimenez rjimenez@calpoly.edu)

6. Application of Ultra High Temperature and Extended Shelf-Life Technology in foods containing dairy ingredients requires fundamental knowledge of the proteolytic enzymes in dairy ingredients and efficacious use of stabilizers and emulsifiers for some product applications. (Details: Kirby Hayes khayes@purdue.edu and T. Benic tbenic@ticgums.com.)

7. Dairy Management, Inc. uses new business models to increasingly emphasize partnering with food industry to provide value of its programming to its investors (dairy producers. (Details: Alan Reed alanr@rosedmi.com.)

8. Market trends indicate dairy ingredients must provide flexibility to meet nutritional, sensory, and functional properties in a wide array of new foods (beverages, snacks) serving a diverse group of consumers. (Details: Donna Berry donnagorski@msn.com.)

9. Permeate and lactose are underutilized dairy streams that contain high value components that may offer value added ingredients opportunities for a relatively low value feed stock. (Details: Bernie Horton wheyhorton@aol.com.)

10. System approaches to new facilities design can result in more efficient operations and value costs savings during construction. (Contact: Bruce Blanchard bdb@geafiltration.com)

The annual Cal Poly Concentrated and Dried Dairy Ingredients Symposium is organized by the Cal Poly Dairy Products Technology Center with financial support provided by California Dairy Research Foundation and United Dairy Export Council.

About the Cal Poly Dairy Products Technology Center
The Dairy Products Technology Center (DPTC), established in 1986, is a program within the College of Agriculture at Cal Poly State University that conducts education, research, and outreach activities to provide solutions to help manage risk, facilitate innovation, and defend equity in the dairy foods industry and related business sectors. For further information visit our website at www.calpoly.edu/~dptc.

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Editors: A longer, more detailed version of this article is available, authored by Professor Phil Tong. To receive a copy for your publication, or for further information contact Laurie Jacobson (805-756-6097, ljacobso@calpoly.edu)