Abstract

Title: An Investigation of the Mechanics of Cereal Flaking

Speaker: Leon Levine, Albuquerque, New Mexico

Until recently there has been little or no fundamental understanding of the commercially important unit operation. In order to improve operational performance, design, and to better understand scale up some basic research if required.

This talk will discuss the results of recent work in this area. The discussion will include modeling of the formation of multiple corn flakes (a limit to production capacity), the modeling of the fluid mechanics of this unit operation, and some of the physicochemical effects of flaking on the material been processed.

Biography of Leon Levine

Leon Levine is presently president of Leon Levine and Associates, a consulting firm, with clients worldwide. He holds a BS and MS in chemical engineering from The City College of New York and is completing his Ph.D. in Agricultural and Biological Engineering at Purdue University. He has more than 30 years of food process and product development and engineering experience. This includes employment with Pillsbury and Procter and Gamble and the First Machinery Corporation. In addition to his industrial experience, he has lectured on food processing at the University of Minnesota and regularly teaches continuing education courses about food process scale-up, extrusion, and food engineering for the American Association of Cereal Chemists, Rutgers University, the American Institute of Baking, the American Institute of Chemical Engineers, and private clients. He has published approximately 50 papers and a number of book chapters on food processing and scale-up. He has coauthored a textbook, Food Processing Operations and Scale Up, and holds a number patents that relate to food processes and products. In addition to being a regular columnist on food engineering in Cereal Foods World, he is on the editorial boards of the Journal of Food Engineering and the Journal of Food Process Engineering.