

ISSUE: 2

M E E T I N G & E X P O N E W S

MEET TODAY

MONDAY, JULY 18, 2005

Proteins provide coating to reduce fat in fried food products

by Donald E. Pszczola, Senior Associate Editor

Foods prepared using frying techniques are generally believed to contain too much total fat. This problem is underscored by the fact that consumption of these foods, especially by children, has risen steadily over time. Food developers, realizing this, are faced with the challenge of creating deep-fat fried foods which have a reduction in fat and subsequent calories.

An application process using extracted proteins provides a novel coating to reduce fat in deep-fat fried meat, poultry, fish, and other products by 25-50%. The process, which increases both the moisture and protein content of the foods, was developed by Proteus Industries, Gloucester, Mass. (phone 978-675-9140; www.proteusindustries.com). Company founder and chief scientist Stephen D. Kelleher will be discussing the process on Monday, 10:50 a.m. during the session, New Products & Technology: Innovations in Functional Ingredients.

Proteins—marketed under the name NutraPure®—are extracted from animal muscle and manipulated to effectively act as fat-blocking agents. They are produced by patented technologies licensed to manufacturers and function effectively with muscle from fish, seafood, beef, pork, and poultry. The proteins are applied either as a batter/additive replacement or as a coating. Waterfall and spray applications are used to apply the proteins to the surface of the substrate prior to frying.

In par-fried shrimp, for example, fat percentage has been reduced 40% with an increase in moisture of 22% vs controls. Fully cooked, breaded 6-oz chicken patties treated with extracted proteins are found to contain 23% to 48% less fat than the leading national brands in similar product categories.

According to Kelleher, the flavor has been rated clean and excellent by sensory panels, the substrate food is moist, and the final product undergoes little shrinkage and holds up well under heat lamps. The crumb has increased crunch with an attractive bronze color. In addition to decreasing fat absorption and improving the quality of the deep-fat products, the process extends the food's shelf life and reduces bacteria.