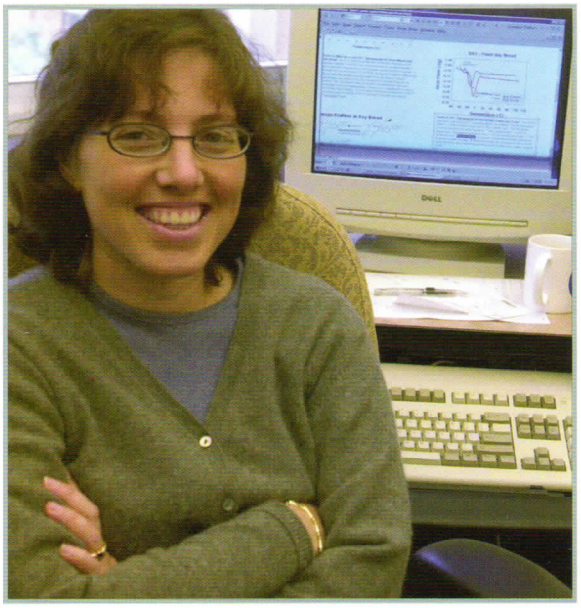
Tasty Tortillas Could Be Big Business



Yael Vodovotz puts corn tortillas under pressure, and she likes the results.

TRADITIONAL CORN TORTILLAS are made from dry masa and water. Their fresh flavor and texture have a much better quality than tortillas currently available in the United States. But, their short shelf-life of one to three days makes them impossible to sell commercially.

However, new food-processing technologies developed in part at Ohio State could solve the shelf-life problem. That's good news for the tortilla industry, the fastest-growing segment of the U.S. baking industry. In 2000, U.S. sales totaled $4.4 billion and were expected to increase to $5.7 billion by 2002.

Tests involving "high-pressure processing" show promising results for corn tortillas, said Yael Vodovotz, assistant professor of food science and technology. In a study funded by the Ohio Corn Growers, she and graduate student Elizabeth Clubbs recently tested the method on vacuum-packaged fresh corn tortillas.

With high-pressure processing, food is packaged and placed into a vessel filled with liquid. Then the vessel is sealed and pressurized. Potentially harmful microorganisms are destroyed by the high pressure, but the product itself remains unaffected and is safe from contamination as long as the package remains unopened. The process is currently used for only a few items, such as high-quality commercial guacamole, but it's gaining interest among more food processors.

The recent study found that high pressure can be used to process corn tortillas without significantly affecting their moisture distribution or stiffness — two important properties that contribute to quality and shelf-life. Processors wanting to offer a higher-quality, fresher-tasting corn tortilla might find what they're looking for with this process, Vodovotz said. ■