

“Did You Know?”

Americans now have a spectrum of fresh-cut fruits and vegetables to choose from—choices not available nearly a decade ago. Food lifestyle changes, also occurring over the last decade—including an increased demand for a variety of fresh, convenient, healthy, quick snacks and meals—have shaped the way we eat and what we eat. Research conducted at the **ARS Western Regional Research Center** in Albany, CA, has revolutionized the food industry and the way Americans eat. ARS scientists teamed with Mantrose-Haeuser Co., Inc., headquartered in Westport, CT, to develop a coating that helps prevent fresh-cut fruits and vegetables from browning. ARS exclusively licensed its U.S.- and foreign-patented technology to Mantrose-Haeuser, who manufactures the coating, under the trade name NatureSeal®. NatureSeal® is sold commercially to apple processors and food retailers who use the coating to treat fresh-cut fruits and vegetables.

The technology uses a special blend of vitamin salts and minerals to extend the shelf life of sliced fruits for up to 28 days under refrigeration without detectable changes in color, flavor or texture. This is the first available commercial product of its kind that doesn't have a bad aftertaste or residue. Mantrose-Haeuser has had tremendous success with the technology.

Initially developed for sliced apples and pears, the technology has been expanded for use on 19 different produce items including sliced avocados, celery, potatoes, carrots, peaches, and romaine lettuce. Over the past few years, the technology has reached expanded markets. Many well-known fast food chains, grocery and retail stores, and restaurants now offer fresh apple slices and other fresh-cut fruits and vegetables as healthy menu options. In addition, organic apple growers are now using the coating to treat sliced apples, offering consumers an organic selection.

This technology has enhanced the booming demand for fresh-cut fruits and vegetables by helping Americans, particularly children, meet recommended dietary intake for fruits and vegetables while on the go. Sliced apples treated with NatureSeal® are now served in the National School Lunch Program through the USDA Sliced Apple Program—and more than 1,000 schools nationwide buy NatureSeal® directly to treat sliced apples on-site for use in school lunches.



Please submit story ideas and national award items to Tara T. Weaver-Missick, tara.weavermissick@ars.usda.gov or call 301-504-1663.