

Well Preserved: The Future of Fresh Is Here

Researchers study new ways of keeping foods safe to eat.

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The Food and Drug Administration regulates the amount of artificial preservatives generally recognized as safe to include in food products in order to slow spoilage caused by mold, air, bacteria, fungi or yeast; maintain food quality; and help control contamination that can cause foodborne illness.

But better ways of protecting foods may soon render the use of these sometimes worrisome additives unnecessary. For example, study findings published in the journal *Food Chemistry* report that scientists recently produced an effective preservative made from flavonoids, compounds found naturally in fruits and vegetables.

“This organic food preservative is derived from plants and produced from food-grade microbes, which means that it is 100 percent natural,” says William Chen, a professor of food science and technology at Nanyang Technological University in Singapore and the study’s leader. “It is also more effective than artificial preservatives and does not require any further processing to keep food fresh.”

In addition, scientists are perfecting high-pressure processing, a method that uses water pressure instead of heat or chemicals to inactivate organisms that cause spoilage in order to extend the shelf life of food products. Emerging technologies that employ ultrasound or pulsed light to preserve foods are also being developed.
