

Study: Getting more shelf life out of milk

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U.S. researchers say they have found a way to kill harmful bacteria in milk while increasing its shelf life without introducing off-flavors.

Michael Qian and colleagues at Oregon State University point out that ultrahigh-temperature pasteurization produces milk that stays fresh at room temperature for six months -- but it also leaves a "cooked" flavor in milk that has limited the popularity of the process.

Now, they have developed a food processing technology called high hydrostatic pressure processing that involves putting foods under extreme pressure, crushing and killing bacteria while leaving food with a fresh, uncooked taste.

"Milk processed at a pressure of about 85,000 pounds per square inch for five minutes, and lower temperatures than used in commercial pasteurization, causes minimal production of chemical compounds responsible for the cooked flavor," the researchers reported, noting the method gives milk a shelf life at refrigerated temperature of at least 45 days.

The study's findings are scheduled for publication in the Nov. 29 issue of the Journal of Agricultural and Food Chemistry.

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