

# NUS team finds way to keep cut fruit fresh longer

Mixture tested successfully with the shelf life of exposed honeydew doubling to seven days

**Samantha Boh**

Leave freshly cut fruit in the open and its colour would change and the flesh would turn mushy.

While this may be unavoidable, scientists from the National University of Singapore (NUS) believe they will soon have a way to more than double the shelf life of cut fruit.

They have developed a mixture which, when tested on honeydew, extended the length of time the fruit could stay exposed at room temperature for up to two days before going bad.

The shelf life at 7 deg C – the temperature at which the fruit would be kept at supermarkets – also doubled to seven days.

The mixture comprises calcium chloride – commonly used as a firming agent in prepared food such as tofu – and chitosan, which is found naturally in the shells of crustaceans and used to prevent food going bad by inhibiting the growth of bacteria.

Assistant Professor Yang Hongshun, from the food science and technology programme in NUS, said the solution will be particularly useful in tropical countries such as Singapore where warm temperatures promote bacterial growth.

Laboratory experiments have found that the optimum temperature for the growth is 30-37 deg C.

“The concern is safety as bacteria can lead to diarrhoea and other diseases,” Prof Yang said.

The team is optimistic that the solution is applicable to a wider range of fruit, especially those similar to honeydew in texture, such as rock melon, papaya and pineapple.

They also believe it will help supermarkets and fruit sellers to save money by reducing wastage.

The next step is to test the solution on other types of fruit, and to form partnerships with industry players to further their research.

A handful of food and beverage companies have already come knocking, wanting to collaborate on the research.

Noting that consumers nowadays are particularly sensitive about food preservatives, Prof Yang emphasised that the solution is safe for consumption and does not affect the taste of the fruit.

But it might take some effort to

win over certain consumers.

For instance, Ms Grace Lim, 38, an educator, says: “I just don’t like the idea of adding preservatives to my food, even if they are natural.”

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Ms Chong Jia Xin and Assistant Professor Yang Hongshun are part of the National University of Singapore team which developed a mixture to double the shelf life of cut fruit.  
ST PHOTO: YEO KAI WEN

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