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16 Aug 2018 03:32PM
(Updated: 16 Aug 2018 03:40PM)

Singapore

NTU scientists develop ‘natural’ food preservative



Professor William Chen and his team of scientists working on the new food preservative. (Photo: NTU)

SINGAPORE: A team of scientists from Nanyang Technological University (NTU) has developed a plant-based food preservative that is said to be more effective than artificial ones.

The result is healthier food that stays fresh longer, said NTU on Thursday (Aug 16).

Researchers found that by adding genes of a plant to baker’s yeast, it produces natural preservatives with antimicrobial and antioxidant properties – two key elements of preservatives that prevents bacteria growth.

“This organic food preservative is derived from plants and produced from food-grade microbes, which means that it is 100 per cent natural and more effective than artificial preservatives,” said Professor William Chen, director of NTU’s Food Science and Technology programme.

NTU said tests carried on meat and fruit juice showed that the natural preservative kept samples fresh for two days without refrigeration. On the other hand, the samples with artificial food preservatives became contaminated with bacteria within six hours.

The study comes amid growing scrutiny on the health risks of consuming food, especially meat products, with artificial preservatives.

The American Academy of Pediatrics, for instance, expressed concern last month about chemical preservatives such as nitrates and nitrites, which it said can interfere with thyroid hormone production. The chemicals have also been linked to gastrointestinal and nervous system cancers.

NTU said its team of scientists is in talks with multinational companies to further develop the new food preservative, and hopes that it will be available commercially within two years.

“This may open new doors in food preservation technologies, providing a low-cost solution for industries, which will in turn encourage a sustainable food production system that can produce healthier food that stays fresh longer,” said Prof Chen.

The team’s findings were published last month in the scientific journal Food Chemistry.

Source: CNA/zt/(gs)