

Compostable packaging is as effective as conventional plastic and may even outperform it for shelf-life of fresh produce, two peer-reviewed studies have revealed.

The results cast new doubt on the claim that conventional plastic packaging is the only possible solution for preserving freshness on the market.

Scientists at the Agricultural Research Organization (ARO), The Volcani Institute (Israel), used cucumbers and bell peppers to test the differences between compostable packaging and conventional plastic packaging.

They found compostable packaging enables shelf-life of bell peppers up to 21 days and cucumbers up to 15 days, even better than conventional plastic. The compostable packages used were purchased from TIPA Corp.

The study on cucumbers has been published in a special issue of the journal *Foods* on "Recent Advances in Reusable, Recyclable, or Compostable Food Packages," and the study on bell peppers has been published in the journal *Food Science & Nutrition*.

In the studies, part of the produce remained unpacked as control, while other produce was packaged in non-perforated, micro-perforated and macro-perforated compostable packaging or in commercial macro-perforated polypropylene packaging.

Afterwards, half the samples were continually stored at 22° C to simulate extended shelf conditions, while the other half were stored for two days at 15°c, a further two days at 22°c and then up to six weeks of home refrigerator storage at 4°c to simulate farm to fork supply chain conditions.

Both papers concluded that the micro-perforated compostable packaging provided a preferable alternative to traditional plastics for vegetable preservation.