

# Keeping soft fruit 'fur-free' for longer

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A new way of improving the shelf life of soft fruit like strawberries and raspberries is being pioneered by researchers at the University of Nottingham. Millions of tons of soft fruit go to waste each year through mold developing on the fragile produce which deteriorates rapidly after picking.

Now scientists at Nottingham have joined forces with colleagues at Loughborough University and UK fruit growers Berryworld to use cold plasma technology to keep the mould at bay for longer.

Cold plasma is already used in the medical world to clean bacteria from wounds safely. It was a chance discovery that led the team of [food](#) scientists and [microbiologists](#) to believe that cold plasma might also be useful in the food sector. They had previously been using the technology, which involves a tiny controllable beam of plasma, similar to lightning, to control micro-organisms and to sterilise surfaces.

Associate Professor in Microbiology at The University of Nottingham, Dr Cath Rees said: "While we were doing that we discovered that we could treat soft fruit with the plasma beam. Soft fruit is notoriously difficult to keep 'fur free' for long, as it bruises easily when handled and becomes contaminated. The cold plasma technology would present a way of eradicating moulds early in the packing process.

"Our findings showed that we could prevent that perennial problem of fruit going mouldy once you get it home. This means better value for the customers and fewer losses for the producers, who normally remove the

mouldy ones before the fruit is sold."

The researchers in the Division of Food Sciences in the School of Biosciences at the University's Sutton Bonington campus are working with the Department of Electronic and Electrical Engineering at Loughborough University to see how effective the technique could be. Early results suggest the cold [plasma treatment](#) gives the produce an extra five days of shelf-life. It could have a significant impact on the economics of soft [fruit production](#).

The project is one of five Collaborative Research and Development grants worth a total of more than £235,000 announced by the East Midlands Food and Drink iNet, which co-ordinates innovation support for businesses, universities and individuals working in the food and drink sector in the region. The iNet is funded by the East Midlands Development Agency (emda) and the European Regional Development Fund.

Food and Drink iNet Director Richard Worrall said: "We are pleased to be able to support this innovative research project which has important potential for the soft fruit sector. Discovering a non-destructive, non-contact and non-residue leaving process that helps extend the shelf-life of soft fruit and prevent wastage could bring major benefits.

"Our Food and Drink iNet Collaborative Research and Development funding is designed to provide help for innovative research schemes that will benefit the food and drink sector in the future, and we are proud to be associated with this project."

Provided by University of Nottingham

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