



changeNOW 2024 Featured Solution

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Innovation > Agriculture & Energy > Prolonging food freshness with natural coatings

PROLONGING FOOD FRESHNESS WITH NATURAL COATINGS

+ AGRICULTURE & ENERGY

A startup is developing a range of products to tackle food waste both before and after the harvest

Spotted: Food waste is a major problem, with around **one-third** of all food produced for human consumption going to waste and **13 per cent** of that happening between harvest and retail. That is a lot of wasted resources and nutrition. One thing that could help is extending the shelf life of crops while preserving their quality.

In Switzerland, AgroSustain, a spinout from the University of Lausanne, is hoping to tackle this problem by becoming a one-stop-shop for natural and biological fungicides and coatings that prevent food waste from farm to fork.

The company's first product is an invisible, odourless, and tasteless coating that extends the shelf life of fruit. This coating, which is called AgroSFruits, has been in use since 2022, but the company is not resting on its laurels and is committed to ongoing research to develop further products for both pre- and post-harvest applications.

These new products include similar natural coatings for flowers and vegetables, as well as a new category of 'next-level' biocoatings. Beyond this, AgroSustain is also working on a biostimulant that will improve the productivity of crops and boost their resilience to emerging environmental stresses, such as drought.

The company claims that its natural coatings can extend the shelf life of some goods by up to one month, while reducing water use by up to **70 per cent**.

Increasingly, innovators are interested in developing new ways to reduce the vast amount of emissions from agriculture. Springwise has spotted a number of these, including using farm waste as

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Takeaway:

Extending the shelf life of food goes beyond stopping food waste – it also enables more products to be shipped by sea, rather than air, saving on transportation emissions. These two factors mean that AgroSustain's coatings could help to significantly reduce the climate impact of food production, which is responsible for around **one-quarter** of global greenhouse gas emissions. Being a University spinoff, the company is heavily research-focused, working closely with top-level academic institutions, and has secured six patents for its technology.