

DomoSistemas

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Translated from Spanish

If I had had this invention during the blackout, my food would have lasted longer in the fridge: it kills bacteria with UV light.

It is compatible with the IKEA line of Tupperware to offer more possibilities of use.



Ultraviolet light is known for its ability to eliminate germs like bacteria, which can spoil food and cause it to expire much sooner. That's why some manufacturers are trying to incorporate it into various devices to improve home hygiene, as we saw in this proposal from Philips or this one from Aurora.

The invention we're introducing today follows this same line, but is much more compact and designed to be used directly in the Tupperware we use to store food, extending the products' shelf life, according to its creators.

EcoLoc, a device to disinfect our food with UV rays

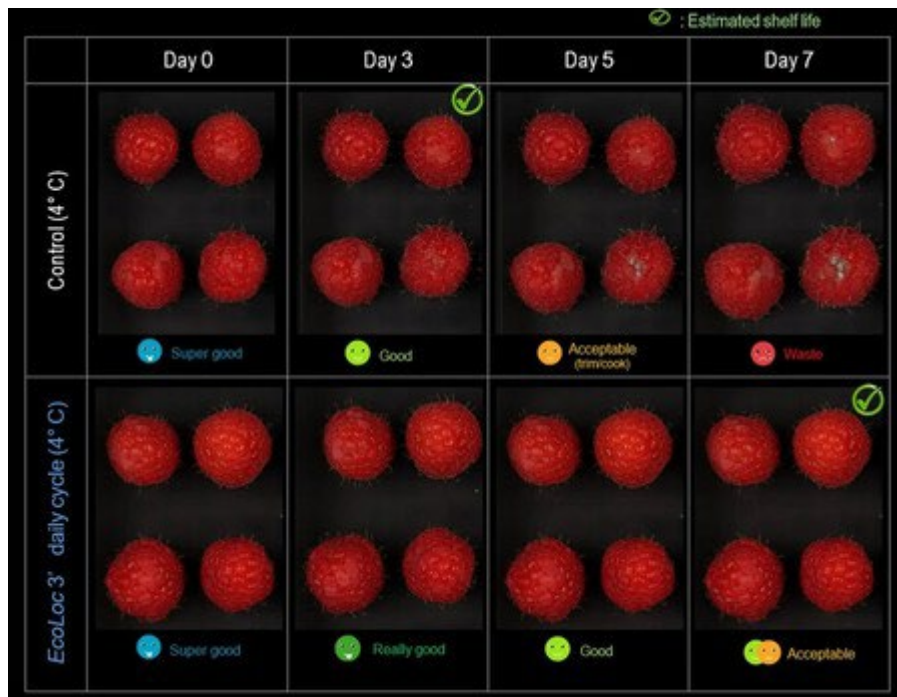


The Swedish-made device is called EcoLoc and consists of two parts: a small, battery-powered UV lamp module and a clear glass lid for food containers with a stand to hold the module. The lid is compatible with IKEA's current line of food containers, expanding its use possibilities.

The module consists of a special chip designed by scientists at Singapore's Nanyang Technological University and the Swedish company PureFize Technologies. This chip produces shortwave ultraviolet (UVC) light without using mercury, which is toxic and commonly used in conventional UVC lamps but would not be recommended for use with food.



Instead, the chip leverages a physical process called cathodoluminescence to emit primarily UVC light, along with some UVA and UVB light, when excited by electrons. It's designed to initially turn on for a few minutes when food is placed in the container and then automatically turn off using a built-in timer. Users can then choose to turn it on for a few minutes each day.



What results does it offer? In laboratory tests, the device was proven effective at eradicating harmful bacteria such as *Pseudomonas aeruginosa*, *Escherichia coli*, and *Legionella pneumophila* from the surface of food. It also extended the shelf life of tomatoes in the refrigerator by seven days, bread rolls by 22 days, and blueberries by up to 28 days.

Price and availability

The EcoLoc starter kit is now available on the manufacturer's website for €79.

<https://domosistemas.com/?p=28436>