TECH OFFER

Food Shelf Life Extension Using Magnetic Interference Technology

KEY INFORMATION

TECHNOLOGY CATEGORY:
Foods - Packaging & Storage
Materials - Nano Materials

TECHNOLOGY READINESS LEVEL (TRL): TRL8
COUNTRY: SINGAPORE
ID NUMBER: TO174905

OVERVIEW

One-fifth of all local and imported food in Singapore and about 15% of all food globally is spoiled during the supply chain due to inadequate food transport facilities. To overcome this, the startup offers a patented technology in the form of a hardware device that emits a magnetic interference field. It can be used throughout the supply chain starting immediately after harvest and all the way to storage and display. In particular, this technology has great potential to be applied during the food transportation when the chance of spoilage is highest due to reasons such as overripening caused by supply chain delays.

The startup is looking to collaborate with food logistics and storage companies, as well as retailers, to integrate their solution.

TECHNOLOGY FEATURES & SPECIFICATIONS

This technology locks the water inside fresh food, minimises bacteria and mold growth, thus extending the food shelf life by at least 30%. Each small semi-circular device can cover a region of 24 inches in diameter and 15 inches in height. The device is

completely passive and requires no energy or maintenance. The useful life of the device is 3 years and the energy field emission conforms to WHO safety guidelines.

POTENTIAL APPLICATIONS

This technology can be applied to slow down food spoilage in:

- Cold chain containers
- Non-cold chain containers
- Food transport trucks
- Food storage baskets
- Refrigerators (Domestic and Commercial)
- Supermarket shelves

It may also be applied during farming process to enhance plant growth and reduce water requirements.

UNIQUE VALUE PROPOSITION

The unique value proposition of this technology lies in the following areas:

- Extends food shelf life in fluctuating ambient conditions
- No energy or maintenance required
- Effective and economical in reducing food waste by up to 40%