

Mobile phone device can measure food spoilage

July 14 2022



Credit: Flinders University

Can a \$1 device that attaches to a mobile phone become a pivotal tool to help solve the \$1 trillion #foodwaste problem?

GoMicro CEO and founder Dr. Sivam Krish says the answer is yes—with GoMicro's Spotcheck App and a phone attachable magnifier

designed for accurately assessing the level of ripeness or spoilage of fresh foods.

Dr. Krish provided evidence of GoMicro's Spotcheck device effectively reading the accuracy of [food](#) spoilage in his presentation at the 400M Agrifood Innovation Forum in Toowoomba, Queensland on 13 July.

Dr. Krish believes GoMicro's innovation, which provides greater accuracy through a superior imaging system and AI App, could save our agricultural industries vast sums of money.

"We can assess the ripeness or spoilage of fruits and vegetables with a 86–99% accuracy, measured in days," says Dr. Krish.

"It's very topical issue for the food industry to address, with an estimated 30% of our food being spoiled.

"We can see that there are some very strong commercial opportunities for a cheap and portable device to have the power to make accurate food spoilage assessments."

Dr. Krish says the GoMicro team took 100 images of an array of different vegetables every day to gather training images for building the AI application. Typically, AI applications require thousands of images for training and are unable to achieve high accuracies in field conditions.

It's the latest important step for GoMicro, a microscopy 4.0 company based at Flinders University's New Venture Institute that started in 2020 as an Edtech company and has pivoted to be an AgTech company. GoMicro won the Bayer Grants4Ag competition, which has led to an ongoing relationship with Bayer Crop Sciences, and won second prize in the 2021 Rocket Speeder FOOD WASTE + LOSS Accelerator Program pitch competition.

GoMicro's aim of re-inventing the microscope and instilling it with [artificial intelligence](#) is designed to make the highest quality technology accessible to the public and not just scientists.

The company's patent-pending technology creates lab-quality imaging conditions that significantly increase the accuracy of detection, reducing the number of images needed for training purposes, resulting in the most accurate AI detection that is available at this level of magnification.

GoMicro has placed its initial focus on agriculture to help farmers and agronomists detect pests, leaf disease and assess food quality accurately.

"Any farmer with a phone will have the diagnostic capability of an agronomist—through building a more accurate AI engine into the Spotcheck microscope attached to a phone," says Dr. Krish.

"It's an important breakthrough, because microscopic information can provide a vast array of information across a wide range of agricultural issues. More importantly we will be making it possible for anyone to build and deploy accurate AI applications."

Provided by Flinders University

Citation: Mobile phone device can measure food spoilage (2022, July 14) retrieved 27 April 2024 from <https://techxplore.com/news/2022-07-mobile-device-food-spoilage.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.