

## Thailand launches Chatbot for strawberry disease diagnosis using AI images

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NECTEC-NSTDA, in collaboration with the Royal Project Foundation, developed the 'Strawberry Disease Bot.' This chatbot facilitates the diagnosis of strawberry diseases through images and provides recommendations for disease control.

Mr. Wasin Sinthupinyo, a researcher from Artificial Intelligence Research Group at NECTEC explained the project's origin. Mr. Wasin's team, in collaboration with Kasetsart University, previously developed the Rice Disease Bot, an image-based rice disease diagnostic chatbot service. Following media coverage of the Rice Disease Bot, the Royal Project Foundation approached the research team, expressing interest in developing a similar disease diagnosis chatbot service for temperate crops to support farmers in the northern region.

Strawberry was chosen for research and development due to its economic importance and the availability of a comprehensive database. The Strawberry Disease Bot is now ready for testing by farmers, the process that will further enhance its performance.

The Strawberry Disease Bot is designed to be user-friendly on the LINE application platform. Farmers can simply take pictures of infected strawberry plants and send them to LINE chat. The images are then transferred to the cloud system, where AI performs disease diagnosis using deep learning. The results, along with recommendations for disease control, are sent back to the farmers within 3-5 seconds.

At present, the chatbot can diagnose five diseases affecting strawberry cultivation in Thailand: anthracnose, leaf blight, gray mold, powdery mildew, and leaf spot. Currently, the system achieves an accuracy of 60-70%, with expectations of

improvement as more data is collected through farmer participation.

“While the accuracy at this early stage may not be high, farmers can still use the chatbot with confidence because technicians at the Royal Project Foundation will help verify the results. Early detection is the key to effectively managing the disease and reducing the use of chemicals. As more farmers use the system, more images will be added to the database, thereby improving the diagnosis performance,” explained Mr. Wasin.

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