

# Unmanned Aircraft Systems for Remote Sensing of Plant Pests

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## **Abstract:**

Advances in unmanned aerial vehicles technology offer an opportunity to detect pest species using high resolution, multi- or hyper-spectral images of either known incursions or high-risk areas. However, their benefits in terms of detection rates, cost effectiveness and any potential limitations have yet to be determined in many cases.

We are involved in a Plant Biosecurity CRC project on “Optimising Plant Biosecurity Surveillance Protocols for Remote Sensing using Unmanned Aerial Systems”. The project aims to compare existing plant pest surveillance practices with emerging UAV alternatives. We will determine the detection rates of plant pests by human surveillance and identify the circumstances where UAVs can improve surveillance strategies.

This presentation will discuss preliminary results from a number of plant pest experiments regarding detection rates of existing surveillance practices, aerial imagery and the use of UAVs.