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RESEARCH DIRECTIONS

Pest-Free Trading

Associate Professor Samsul Huda from the Centre for Plant and Food Science, and Dr Liwan Liyanage from the School of Computing and Mathematics, have collaborated with partner investigator Dr Tony Martin from the Department of Agriculture and Food, WA, to adapt existing methodologies for evaluating pest- or disease-free status through a Australian Department of Agriculture, Fisheries and Forestry funded Australian Centre of Excellence for Risk Analysis (ACERA) Grant.

'Being able to accurately establish the pest and disease status of plants and livestock is crucial for Australia's rural exports' says Associate Professor Huda. 'Over the years various methods have been employed to attempt to provide evidence-based support to substantiate claims of pest- or disease-free status but these methods have had weaknesses, including not being applicable to both animals and plants, being costly and time consuming, being open to bias from assessors, and relying on unrepresentative data. Recently, a new analytical approach which can evaluate all types of surveillance activity for pest/disease detection including direct observation and testing of livestock, using computer-aided data analysis has been used. While superior to older approaches, these analytical methods were developed for animal populations, and had not been used for validation of plant disease-free status.'

This project evaluated current surveillance activities in order to adapt the system to apply to plants as well as animals. The team looked at two case studies of plant pest surveillance programs and reviewed the methodology and software used in order to define issues that could pose obstacles to

use for plant pest and disease status validation, and acceptance by end users and export trading partners.

This project aimed to contribute to strengthening Australia's economy by assisting in improving confidence for livestock and plant traders and buyers of the pest-free and disease-free status of Australian plants and livestock in the national and international market.

Project Title: Combining disparate data sources to demonstrate pest/disease status
Funding has been set at: $5,000
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