Government of **Western Australia**
Department of **Agriculture** and **Food**

Enquiries: Rosalie McCauley

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House of Representatives Standing Committee on Agriculture and Industry

Dear Committee

Thank you for the opportunity to provide a submission on the role of technology in increasing agricultural productivity in Australia. Our submission is focused on the use of new technologies to increase the collection of biosecurity surveillance data.

Background

To quote the National Plant Biosecurity Surveillance Strategy Version 1.0 May 2013 – 2020[i]: "Plant biosecurity is a set of measures which safeguard the economy, environment and community from the negative impacts associated with plant pests. A fully functional and efficient biosecurity system is a vital part of the future profitability, productivity and sustainability of Australia's plant production industries and is necessary to preserve the Australian environment and way of life. Plant biosecurity activities are fundamental to safeguard Australia's plant health status to maintain access to overseas markets."

There are five recommendations in this strategy and these are:

Recommendation 1:	Provide mechanisms for coordinating and establishing a nationally integrated and consistent plant biosecurity surveillance system and network that underpins Australia's biosecurity system.
Recommendation 2:	Establish a national surveillance information framework including the development of nationally agreed surveillance standards and protocols in order to optimise the collection, analysis and reporting of surveillance data.
Recommendation 3:	Establish mechanisms to engage industry and communities to ensure broader recognition of the importance of surveillance and collection of surveillance information.
Recommendation 4:	Enhance the national capacity and capability to undertake plant pest surveillance underpinned by targeted research, development and extension.
Recommendation 5:	Enhance the national surveillance system by adopting consistent legislation and regulatory.

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Since August 2014, the grains e-surveillance sub-project within the Boosting Biosecurity defences project has been working towards achieving these recommendations. The first aim of the sub-project is to:

"Improve grains industry surveillance and diagnosis of pest and diseases in the field by collecting data using mobile and tablet based activities which are then funnelled into existing systems and databases housed by the Department of Agriculture and Food, Western Australia (DAFWA). The project team will gather incoming surveillance data from this system and use standardised statistical methods to calculate the probability of area freedom from exotic pests and supply this information to relevant stakeholders to assist with on-going market access for WA agricultural businesses."

The project team has developed and released two Smartphone apps and an on-line reporting tool (please see MyPestGuide apps and online reporting). These tools are free and enable agricultural and related industry stakeholders as well as members of the community to quickly and easily take up to four photos of a pest (insect, disease, weed or animal) and send their reports via their device to the DAFWA for formal verification. Subject matter experts at the department identify the pest and send a response back to the reporter's device. This new technology engages and helps build stakeholder and community awareness of pests (recommendation 3 above) and at the same time improves the collection of surveillance data (recommendations 1 and 3). In other words, the grains e-surveillance project is a fantastic example of the use of new and **emerging technology** to **improve the efficiency of agricultural practices**. In the future, there **is scope** for using the MyPestGuide apps and online reporting tools to collect surveillance data across all states and build a nationally coordinated system based on the use of these new technologies to collect surveillance data.

Barriers to adoption

Since August 2014, there has been 2653 downloads of MyPestGuide Smartphone apps. With the aim of increasing awareness and adoption of these tools the sub-project team ran a Biosecurity Blitz from 18 to 30 September 2015. This event was publicised as "an opportunity for all to join in and help discover as many unusual or damaging pests (insects, diseases and weeds) as possible across Western Australia over a period of two weeks. Your efforts to report pests will protect Western Australia's agri-food industries and the natural environment from harmful exotic pests." This event was supported by media releases (https://www.agric.wa.gov.au/news/media-releases/biosecurity-blitz-protects-agriculture-pests-and-diseases, https://www.agric.wa.gov.au/news/media-releases/urban-citrus-growers-asked-look-out-pest-wasp), articles in electronic and print media and a series of tweets.

The project team delivered information about the Biosecurity Blitz to more than forty relevant grains industry organisations (Grains Industry Association of WA, the Grower Group Alliance, the Grains Research and Development Corporation Regional Cropping Solutions Network, CBH Group, Partners in Grain, The Australian Association of Agricultural Consultants), state and local government organisations (Shire Councils, Community Resource Centres, Regional Development Commissions) and other agri-food industry groups and community groups (VegetablesWA, Nursery and Garden Industry WA, Yates). Members of the sub-project team attended the three main Spring Field Days (Dowerin, Newdegate and Mingenew) and various Field Days to demonstrate the tools and encourage people to download and use the tools to send reports to the department.

In the first six days of the Biosecurity Blitz the Department of Agriculture and Food Western Australia received 193 reports. Considering that 2653 people have downloaded a MyPestGuide app this result suggests that there is a barrier to adoption of these new reporting technologies.

From our experience in talking to grains industry stakeholders and members of the community the barrier to adoption in their view is that "I am too busy to send a report. I will not make time to send a report as I don't understand there is a need to collect surveillance data to ensure ongoing sale of Australian produce to overseas markets". In short, grains industry stakeholders do not understand that collection of surveillance data is part of quality assurance within the supply chain of their product while community members don't understand that "biosecurity is everybody's business".

We request that the Standing Committee consider allocating funds to research and deliver new and effective ways to change these views and thereby assist with the behavioural change required to help achieve the recommendations of the National Plant Biosecurity Surveillance Strategy.

Yours sincerely

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[i] National Plant Biosecurity Surveillance Strategy Version 1.0 May 2013 2013 – 2020, downloaded September 2015 from: http://www.planthealthaustralia.com.au/wp-content/uploads/2013/04/National-Plant-Biosecurity-Surveillence-Strategy.pdf