

## Technology set to revolutionise farming

### Computing programs to safeguard crops

#### PESTS

Western Australia's role as the nation's major supplier of export wheat, barley and oats has been identified by DAFWA as being "at risk" from invasive pests and disease.

A national grains industry surveillance and diagnosis e-network is being set up to establish an early detection capability to respond to any such exotic threats as part of the Boosting Biosecurity Defences project through Royalties for Regions.

A funding application from the Department of Agriculture and Food WA (DAFWA) to COGGO was approved, leading to the development of computer software that assists in the identification and then mapping of threats to support the network.

The MyPestGuide phone app is helping growers and agronomists identify insects found in paddocks. In addition, Adopt-a-Crop, a Google maps based data collection system, helps growers identify where diseases and pests are active in their areas.

The MyPestGuide app helps growers create personal maps which show problem areas that can be shared with their agronomists and neighbours allowing an integrated approach to fixing the problem.

Both MyPestGuide and Adopt-a-Crop will complement targeted surveillance programs already being undertaken by private agronomists or growers who inspect their crops, collect samples and submit these to DAFWA for identification.

The underlying database for these two programs allows the system to quickly adapt for any crop, and pest records can be added in minutes and then synchronised with field devices.

DAFWA Senior Research Officer Rob Emery said these applications will help support export market access as well as increasing the industries' capacity for early detection to respond to exotic pests or diseases.

"The adoption of MyPestGuide and Adopt-a-Crop by agribusiness, especially growers and agronomists, will lead to better pest management and more efficient use of pesticides," according to Rob Emery.

Phase one of the research, establishing a surveillance and diagnosis network focused only on canola crops, was implemented in 2014, while phase two is currently underway to deploy this network to other grain crops in Western Australia and eventually nationally.

**COGGO is a public company formed by West Australian grain growers concerned about the level of resources being allocated to research in the state. It is a general R&D funder providing grants to applicants who can demonstrate innovative ideas that will boost grain farm productivity or benefit grain growers' profitability through projects for geographic, crop specific sectors or the general grains industry. Grain grower members contribute annually to this fund.**