

Managing pest threats to the WA Grains Industry.

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Key messages

- Biosecurity threats to the Australian grain industry exist that could have dire economic effect on productivity and market access.
- Both national and state level organisations exist to assist the grain industry manage the impact of these threats.
- Grain biosecurity is everyone's business.

Aims

The Plant Health Australia's (PHA) Grains Farm Biosecurity Program aims to highlight improved management and preparedness for the many biosecurity risks to the Australian grains industry. PHA targets pests that are exotic to Australia. These are known as High Priority Pests (HPPs).

At the state level the Department of Agriculture and Food, Western Australia's GrainGuard initiative complements the national program by identifying biosecurity risks and pest threats that already exist in Australia but not in Western Australia. These pest threats are known as regional pests.

This two tier approach to grain biosecurity aims to maintain both WA grain grower productivity profit and gain, improve or maintain market access for export grain products.

Background

The Australian grains industry produces a diverse range of crops and is of significance to the nation's economy and the livelihood of many people. The majority of production is located in Australia's wheat belt from central Queensland through NSW, Victoria, Tasmania, SA and southern WA.

The primary grain crops grown in Australia are wheat, barley, sorghum, oats, canola and lupins. Wheat is the largest crop, accounting for more than half the value of grain production. In 2010–11, over 50 million tonnes of grain were produced in Australia with a gross value of approximately \$11 billion. Most of the grain produced in Australia is exported, predominantly to Asian markets, including China, Indonesia, India, Japan and Korea. In 2010–11, grain exports were valued at \$8.5 billion (PHA 2013a).

The Western Australian grains industry is a significant contributor to the agricultural sector and the Australian economy. The cereal industry is the largest agricultural sector in WA with wheat being the dominant crop. WA cereal exports totalled \$2.7 billion in 2011/12 while minor crops such as legumes and canola totalled \$680 million (DAFWA, 2013).

Organisational structures have been developed to assist in the awareness, protection and elimination of pest threats that do not currently exist in Australia. It is estimated that there are over **300** pest species exotic to Australia that should they become established would become either a production risk threat to growers or a market threat to Australia's export grain markets.

National level

The grains industry invests in an on-farm biosecurity program to raise awareness at the national level. Grain Producers Australia (GPA) funds the Grains Farm Biosecurity Program

which includes the deployment of five Grains Biosecurity Officers embedded in state departments in NSW, Queensland, SA, Victoria and WA.

The program managed by PHA conducts a range of extension, monitoring and preparedness activities. Specifically these activities target raising awareness of the importance of biosecurity through the supply chain, collation of surveillance data for early detection and evidence of absence, and assisting producers with identification and implementation of biosecurity best practice for grain growers.

The National grains industry is covered by the Grains Industry Biosecurity Plan (IBP Version 2.04), which includes the HPPs of the industry and the Farm Biosecurity Manual for the Grains Industry Version 3.1 (PHA 2011). Both are available from PHA.

A Farm Biosecurity Manual has been developed for the Organic Grains Industry (PHA, 2013b). While only of minor value in monetary terms (approximately \$17 million) the Organic grains industry is on the increase. The majority of production is centred in NSW and Queensland. Biosecurity is of particular importance in organic systems due to the need to comply with chemical use restrictions. The organic grains industry is acutely vulnerable from pest incursions.

State level

In WA at the state level there is a similar program called GrainGuard which predates PHA, commencing in 1997. GrainGuard is a coordinated and cooperative strategic approach between the grain industry and the Western Australian government. The goal is the protection of Western Australia's grain industry to minimise risks to production and increase access to markets.

GrainGuard specifically deals with threats from regional quarantine pests. These pests are present elsewhere in Australia but are considered to be quarantine pests for Western Australia. There is a degree of overlap between the two spheres of management and like PHA, GrainGuard has drafted an IBP specifically for the WA grains industry. The GrainGuard IBP is currently undergoing review and incorporates industry input through its committee members.

Effective grains biosecurity is everyone's business. All grains industry stakeholders should work together to maintain freedom from both exotic and regional plant pests. The GrainGuard committee has representatives from all sectors of the grains industry to help maximise industry sustainability and to capitalise on production efficiency, international and interstate market competitiveness and profitability.

GrainGuard identifies key industry biosecurity threats, incorporates surveillance activities, plans for incident responses and facilitates communication, training and research.

In 2012-13, a DAFWA-led working group analysed Western Australian grains industry biosecurity to identify gaps and opportunities for improvement. The working group has members from PHA, the Grain Industry Market Access Forum (GIMAF), the Grain Industry Association of Western Australia (GIWA) and the Victorian Department of Primary Industry. The working group have gathered information from surveillance and diagnosis professionals and stakeholders and analysed the following policy documents:

- two reviews of diagnosis and surveillance within the Australian grains industry (Taylor and Slattery 2008, DAFWA 2013)
- a proposal for a national grains industry surveillance scheme (Hudson and Ramage 2012)
- a National Plant Biosecurity Surveillance Strategy
- an Intergovernmental agreement on Biosecurity (IGAB)

- a Proposed National Action Plan for Community Involvement in Plant Biosecurity

This working group found that the consensus view of grains industry stakeholders is that there is a need for a more coordinated approach to grains industry biosecurity and also a need to engage the community in general surveillance activities to support targeted surveillance activities.

2014 pilot surveillance and diagnosis program

In 2014 the working group will work with stakeholders to run a pilot surveillance and diagnosis program. This pilot will concentrate on using targeted and general surveillance activities to monitor the presence and absence of pests in canola crops across the cropping regions of WA.

Why

Western Australia exports more grain than any other state in Australia. Ongoing market access for WA and other states is dependent on having an effective early exotic pest detection capacity and also surveillance and diagnosis data to support area freedom claims.

Gap analysis of grains industry biosecurity has shown that there is a need for a more coordinated approach to grains industry biosecurity and also a need to engage the community in general surveillance activities. Agribusiness, growers and industry partners are being encouraged to be involved to support targeted surveillance activities.

How

The Council of Grain Grower Organisations (COGGO) has granted DAFWA \$30,000 to enable the development of mobile and a web based systems for pest identification and reporting. These systems are called MyPestGuide and will enable growers, agronomists, and the wider community to monitor and report to DAFWA on presence of pests in canola crops. DAFWA staff will carry out biosecurity-related education activities during 2014 to encourage grains industry stakeholders and community to use MyPestGuide to report on the presence of endemic pests and the absence of exotic pests.

During the growing season, DAFWA will collate the information on endemic pests and provide this to stakeholders to assist with their management of these pests. After harvest, a DAFWA statistician will use Bayesian statistics and the monitoring reports of exotic pests to calculate the probability of area freedom from exotic pests. At the end of the pilot, the working group will review the pilot activities and outputs and report to DAFWA and the wider grains industry on the key learnings from the pilot and whether or not the pilot should be extended to other grain crops and regions in the future.



Key words

Grains, Biosecurity, High Priority Pests.

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