



THE CRAWFORD FUND FOR FOOD SECURITY ANNUAL CONFERENCE

Emerging Voices Shaping Regional Integration for a Food Secure World

10-11 August 2026

Parliament House, Canberra,
Australia, and online



Ranking priority plant pests and diseases

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The Crawford Fund for Food Security 2026 Annual Conference

The plant pest problem

- Preventing plant pests and diseases safeguards our agricultural systems
- We identify National Priority Plant Pests (NPPPs) to plan and prepare for plant threats to Australia
- Pest ranking frameworks are globally subjective and inconsistent, with no objective way to rank plant pests not present in Australia for the NPPPs
- Australian investment in regional biosecurity supports national pest preparedness and regional pest management



Image from Economic impacts of *Xylella fastidiosa* on the Australian wine grape and wine-making industries (DAFF)

How to identify the most serious pest threats?

Project methods

Supporting goals

- | | Project methods | Supporting goals |
|---|---|---|
| 1 | Identify invasive global pests | Horizon scanning for regional biosecurity |
| 2 | Model climate similarity to Australia | Broad-scale triage of plant pests |
| 3 | Estimate relative arrival risks | Supporting regional biosecurity systems |
| 4 | Map pest-host climate suitability overlap | Grower readiness |
| 5 | Calculate potential bioeconomic impacts | National preparedness |

This framework can then be applied internationally to identify priority pests, improving biosecurity outcomes for growers and farmers.



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Thank you!

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