



QUEENSLAND FARMERS' FEDERATION

Primary Producers House, Level 8, 183 North Quay, Brisbane QLD 4000
PO Box 12009 George Street, Brisbane QLD 4003
qfarmers@qff.org.au | 07 3837 4720
ABN 44 055 764 488

Submission

2 September 2022

Mr Gerry McNally
Committee Secretary
RRAT References Committee
PO Box 6100
Parliament House
CANBERRA ACT 2600

Via email: rrat.sen@aph.gov.au

Dear Mr McNally

Re: Senate Inquiry into the adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot-and-mouth disease

The Queensland Farmers' Federation (QFF) is the united voice of intensive and irrigated agriculture in Queensland. It is a federation that represents the interests of 21 peak state and national agriculture industry organisations and engages in a broad range of economic, social, environmental and regional issues of strategic importance to the productivity, sustainability and growth of the agricultural sector. QFF's mission is to secure a strong and sustainable future for Queensland farmers by representing the common interests of our member organisations:

- CANEGROWERS
- Cotton Australia
- Growcom
- Nursery & Garden Industry Queensland (NGIQ)
- EastAUSmilk (formerly QDO)
- Australian Cane Farmers Association (ACFA)
- Turf Queensland
- Queensland United Egg Producers (QUEP)
- Queensland Chicken Meat Council (QCMC)
- Bundaberg Regional Irrigators Group (BRIG)
- Burdekin River Irrigation Area Irrigators Ltd (BRIA)
- Central Downs Irrigators Ltd (CDIL)
- Fairbairn Irrigation Network Ltd
- Mallowa Irrigation Ltd
- Pioneer Valley Water Cooperative Ltd (PV Water)
- Theodore Water Pty Ltd
- Eton Irrigation Scheme Ltd
- Lockyer Water Users Forum (LWUF)
- Pork Queensland Inc
- Tropical Carbon Farming Innovation Hub
- Queensland Oyster Growers Association (QOGA)

The united voice of intensive and irrigated agriculture



QFF welcomes the opportunity to provide comment on the adequacy of Australia's biosecurity measures and response preparedness. We provide this submission without prejudice to any additional submission from our members or individual farmers.

SUBMISSION

- a. the adequacy of Australia's biosecurity measures and response preparedness, in particular with respect to foot-and-mouth disease and varroa mite;
- b. response to and implementation of previous reports into biosecurity; and
- c. any related matters.

a. Adequacy of Australia's Biosecurity Measures and Response Preparedness

There are key components of dealing with the threats of exotic disease and mites that together form the basis of a solid defence against the impact of these devastating occurrences in animals and plants. These are well known and include:

- prevention
- early detection
- effective response
- recovery

As none are 100% effective, each one builds and relies upon the other components and a weakness in one can mean the difference between disaster and a short sharp effective response with minimal damage.

Prevention

- Australia has a robust framework for preventing the entry of exotic diseases and pests into Australia. Illegal product is targeted at ports of entry. This has been strengthened in recent times due to the Foot and Mouth (FMD) outbreak in Indonesia. However, the Matthews report (2011- focussed on FMD) challenged the assumption that the most likely pathway of FMD virus into Australia is through conventional legal import processes subject to the then Australian Quarantine Inspection Service (AQIS) and intervention. The Matthews report said that a more likely pathway is through non transparent, illegal import channels not subject to routine AQIS intervention.
- Certainly recent infections of exotic disease have come into the country through diverse channels.
 - The equine influenza (EI) outbreak came about from a horse being released from a quarantine station with EI.
 - A large plant disease investigation was suspected to come from illegal importation but there was insufficient evidence to take the investigation further.
 - More recently, Japanese Encephalitis is believed to have entered Australia through a weather event involving cyclones and the jetstream carrying infected mosquitoes. The alternative hypothesis was that migratory birds had brought the disease in.
 - The blood borne bacterium *Ehrlichia canis* causing severe and sometimes fatal disease in dogs and foxes has mysteriously appeared in Northern Australia. It is carried by the brown dog tick but how did Ehrlichia come to infect the tick. The disease is now established in the NT and WA.
 - Varroa mite has entered Australia probably through beehives forming on ships where varroa mite is endemic.

- Hendra virus emerged in Australia without any entry from overseas but from a relatively silent virus until habitat disturbance placed bats under ecological and physiological distress, inducing them to shed virus.
- Avian influenza in Australia usually mutates from low pathogenic strains already circulating in the environment to high pathogenic strains.
- Australia has not experienced bioterrorism but this is another potential way for disease to occur in Australia, especially given the unstable world political climate.
- **The conclusion is that there are many routes of entry, not all of them possible to detect until after they have established or caused disease.**
- **Second level prevention then is essential** to prevent the disease from infecting susceptible livestock and animals.
 - There is a gap in the adequacy of on farm biosecurity. It is well adhered to in large commercial enterprises but middle size enterprises are likely to not be so rigorous.
 - The smaller end of town needs more support. On farm preparedness, early detection within the herd and prevention measures are extremely important. In particular, the majority of dairy farmers in Queensland are small and family owned. What may seem like a small pull in resources can be significant for these farmers and improving capacity in this area would be helpful to the whole industry. These smaller farmers are likely to be the ones to exit the industry on getting a disease like FMD onto their property which would have wider social implications for regional development.
 - Education of the community, professionals and agricultural producers to not engage in risky behaviour (e.g. swill feeding) is very important and could be better

Early detection

There are previous official reports and reviews that support more investment in prevention and early detection. These include:

- **Queensland Biosecurity Capability Review 2015 stated** “There is now general agreement that activities focussed on prevention and early detection of new incursions often have a much higher rate of return than those that focus on controlling established infestations. Allocating resources to prevent an incursion or to detect one early, often result in considerable savings in management and eradication or containment costs later.”
- **Matthews Report 2011 – This report into Australia’s readiness to respond to FMD said:** [FMD](#) is by far the most significant biosecurity threat to Australia's livestock industries. An outbreak in Australia could have devastating consequences for our community in lost production, trade and tourism. It would also have social consequences resulting from movement restrictions and response activities during an outbreak. New policy directions should focus more resources and effort towards the ‘earlier’ elements of the emergency management continuum: anticipation; prevention; and preparedness. Until now, Australia has focused most on the post-incursion response elements of the continuum. The Matthews report also said that any delay in detecting FMD could seriously amplify the scale and duration of an outbreak, the losses that are experienced and the nation’s ability to recover.

- **While the risk has greatly increased** over the past 30 years (increased travel and trade, emerging diseases in wildlife due to stress from habitat destruction and climate change), investment particularly in **surveillance has declined**. Although there has been pressure on governments to reduce spending and the funding environment has become more competitive, this is still hard to understand given the gravity of impact of a disease like FMD on people's livelihoods and the economy.
 - **The Qld Biosecurity Capability Review (2016)** said that diagnostic submissions in cattle had fallen from 3822 in 1999-2000 to 1320 during 2014, **roughly one third**.
 - **A paper on Disease Trends in Poultry** over 7 years from 1987 -1994 presented to a Poultry Symposium by the Queensland government specialist poultry pathologist showed that in the 7-year period from 1987 to 1993, annual poultry diagnostic submissions ranged from 411 to 913 with an average of 693. At a Poultry Health Liaison Group (PHLG) meeting in November 2021, there was a report of 49 diagnostic submissions in the 6-month period from May to November. Similar figures were presented at the PHLG meeting held in June 2022. **This represents an 80% reduction in surveillance in poultry over the last 30 years.**
 - The major reason for the reduction in Queensland is the **closure of 3 regional laboratories** in Townsville, Rockhampton and Toowoomba with the Coopers Plains laboratory in Brisbane taking on the state submissions.
 - While diagnostic tests remain free in Queensland, **the cost for transport** remains the responsibility of the submitter. At a cost of hundreds of dollars to transport specimens from some parts of the state, this is a cost that deters submissions. Surveillance is therefore not necessarily representative or uniform across the state with the south- east more likely to attract submissions because they are within driving distance of the single veterinary government lab in Queensland located in Brisbane.
 - **The plant health diagnostic resources** are more problematic than the animal diagnostics. There is no central laboratory that deals with diagnosis and diagnosis relies on a network of specialists in different fields where diagnostics is not their prime purpose. As such, diagnosis can take some time and in the last 20 years in Queensland, most of the plant incursions have been declared endemic due to the amount of time it has taken for them to be discovered.
 - **Sugarcane smut**, caused by the fungus *Ustilago scitaminea* in Queensland in 2006 wiped up to 30 per cent off gross margins in the state's \$2 billion industry. It was found in multiple areas and tracing evidence suggested that the disease had been present for 2 years. One pathologist felt that abnormal jet streams from Indonesia in 2004 may have been responsible for blowing the fungus in from overseas. Control is now by planting resistant plants.
 - **Panama tropical race 4 disease, a soil fungus** threatening the \$600 million- a year industry was diagnosed at Tully in 2015. In 2020, another infection was found on a property close to three other properties infested with the disease in 2015. The Qld government has spent \$42 million to manage the disease.
 - While technology has improved, and there are impressive advances especially in the remote sensing applications, this technology needs to be accessible, practical and affordable and need to be supported by a fundamental understanding of how the technologies work as well as their integration with core science related to the pests and diseases they are focussed on.
 - The characteristic of plant diseases is that when it is detected, it is usually well established and possibly here to stay. Early detection is a priority in managing these diseases.

Effective response

The current capability of the Australian biosecurity system to respond to a major disease incursion is low. Disinvestment in biosecurity over the past 20 years has made defences very vulnerable. The key areas affected are:

- **Skills and training:**
 - there is a false belief that COVID demonstrated that there is a reserve resource in the whole of government to respond to emergencies. While it is debatable that without formal agreements, departments will willingly give up their own resources for the greater good, there is also the issue of training. Laboratory staff doing NATA accredited tests will not materialise overnight; field staff handling animals and taking test samples or destroying livestock are not ready-made skills in the government.
 - There is an expectation that industry will provide many of these skills. However, there is minimal training of industry apart from the livestock liaison role and there is only a handful of those available for each industry. Effective skilling and training requires regular updates
- **Capacity**
 - The number of veterinarians and biosecurity officers have been reduced markedly over the past 20 years. The recent Japanese Encephalitis response utilised most of the staff and if there had been another outbreak, there would not have been capacity to deal with it. Although there has been recent announcements of investment in Biosecurity, the new staff will be naive until they build up experience over a period of years.
 - Veterinarians will be in short supply as there are already shortages and those that are there will have their own businesses to ensure that they remain viable.
 - **2016: The OIE PVS (World Organisation for Animal Health Performance of Veterinary Services)** Evaluation of Australia team released a report in 2016 in an evaluation of Australian veterinary services. It was highlighted that staff levels in some jurisdictions are not just stretched for emergencies, but they are stretched now. These services are managing to cope because they are prioritising work and some work is not being carried out fully or at all.

Recovery

The AUSVETPLAN outlines what is required to establish freedom and the Disaster Groups are well versed in getting recovery done. As long as plans are in place with appropriate compensation, this may go smoothly albeit there will be long term impact on the economy and regional communities. More consideration needs to be done is what if FMD comes into the Australian beef and pig meat sectors. This represents a significant portion of community food and plans should be in place to identify how supply chains will work to cover this shortfall.

Anticipation and negotiations with trading partners before an event occurs, ensuring that the OIE recommendations are understood and agreed to are key to opening our export markets again. More difficult will be a potential exodus of farmers from the system who cannot sustain the financial losses involved.

b. Response to and implementation of previous reports into biosecurity

| Year | Report/Review | Key gaps/recommendations | Implementation |
|-------------|--|---|--|
| 2008 | Beale Report – <i>One Biosecurity – a working partnership</i> | <ul style="list-style-type: none"> • Australia’s biosecurity agencies are significantly under-resourced. • Establish the National Biosecurity Authority • Strengthen partnerships, shared responsibility. risk based | <ul style="list-style-type: none"> • Some increase, still under resourced • Not done • Some improvement but minimal |
| 2011 | Ken Matthews – <i>A Review of Australia’s Preparedness for the Threat of Foot and Mouth Disease</i> | <ul style="list-style-type: none"> • Focus more resources and elements toward the earlier elements of the emergency management continuum; anticipation, prevention and preparedness | <ul style="list-style-type: none"> • States have significantly reduced their investment in this area. |
| 2012 | IGAB (Intergovernmental agreement on Biosecurity) | <ul style="list-style-type: none"> • Outlines the priority areas for collaboration to minimise the impact of pests and disease on Australia’s economy, environment and the community. Decisions and investments will be supported by a national biosecurity information and intelligence system that improves decision-making at the regional, state and national levels and provides access to a wide range of relevant biosecurity information sources across the continuum. | <ul style="list-style-type: none"> • Good in principle agreement - yet to see real changes at state levels |
| 2015 | Agriculture Competitiveness White Paper | <ul style="list-style-type: none"> • \$200 million over 4 years invested in Biosecurity Surveillance and Analysis | <ul style="list-style-type: none"> • Improved surveillance in northern Australia • Community based engagement with indigenous rangers • Scientific staff to assess and analyse risks and improved diagnostic capability and |

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|------|--|---|--|
| | | | infrastructure in northern Australia |
| 2016 | The OIE PVS (World Organisation for Animal Health Performance of Veterinary Services) | <ul style="list-style-type: none"> A report was released in 2016 in an evaluation of Australian veterinary services. It was highlighted that staff levels in some jurisdictions are not just stretched for emergencies, but they are stretched now. These services are managing to cope because they are prioritising work and some work is not being carried out fully or at all. Their recommendation was: <i>There should be an in-depth evaluation of staffing levels of veterinarians and veterinary paraprofessionals at jurisdiction level, with particular attention to emergency animal disease response capability and essential “peace time” responsibilities like e. g. surveillance and traceability functions.</i> | <ul style="list-style-type: none"> There has been little progress on this. |
| 2019 | IGAB 2 | <ul style="list-style-type: none"> National biosecurity system establishes three formal agreements that outline responses to exotic pests and diseases that have potential to impact animal, plant or human health or the environment. These are the Emergency Animal Disease Response Agreement and the Emergency Plant Pest Response Deed between industry and governments and the National Environmental Biosecurity Response Agreement between governments. The majority of cost-shared eradication responses are conducted under these agreements | Agreements in place but some variation between states in the Plant agreement such as when compensation is paid . |

c. Other relevant matters:

Queensland Farmers Federation makes the following observations.

- There are significant deficiencies in Australia's biosecurity defence abilities in agriculture. This threatens Australia's economy.
- Jurisdictions have varying commitments and approaches to surveillance and preparedness. While there will be variations of risk in each jurisdiction, unless there is a consistent approach to risk, one or more states will be the Achilles heel and allow a disease or pest in that could spread to the rest of those jurisdictions who are investing more.
- To inform this consistent approach, minimum standards in numbers of samples needed for effective surveillance, ease and timeliness of getting samples to laboratories for testing, ease and timeliness to get investigators to remote areas where a disease may be reported, regular reports and benchmarking between jurisdictions and reviews are essential for both plants and animals.

Animal Biosecurity Considerations

- The risk to animal diseases has perhaps never been higher with FMD island hopping across the Indonesian archipelago heading eastwards to Timor Leste and New Guinea , African Swine Fever is going the same pathways and is now in Papua New Guinea and Lumpy Skin Disease in cattle is also doing the same.
- FMD in particular would cause catastrophic economic loss to Australia if the disease enters Australia

Plant and Marine Biosecurity Considerations

- The Australian plant diagnostic system requires investment in order for early detection. Most plant incursions are not eradicated because they have been here for years before discovery and well established.
- Marine biosecurity is also difficult. Varroa mites generally enter the country through hives of infected bees hitchhiking on ships. Brown marmorated stink bug arrived by shipping container and will do so again. The proposal to levy incoming freight to fund increased surveillance, not supported by the Morrison government, needs to be implemented.

Funding and Resources

- In Queensland, the cumulative effect of under investment in biosecurity over the past 15 years, has been an erosion in capacity to combat biosecurity threats.
- While in recent weeks, states have announced increases to their biosecurity budget, there is a lag time between investment and realisation of that investment. You cannot go to a shop and buy experience and skills. It requires long-term working relationships with educational institutions and industry to identify long term risks, predict skill gaps, develop new courses and ensure graduates have opportunities to build on those skills.
- The recent announcement of an increased biosecurity budget by the Queensland government only relates to animal biosecurity, there is no increase for plant biosecurity or general biosecurity matters.
- While needing to be adaptable for unexpected biosecurity incursions, investment in biosecurity is a long game, needing a flexible approach based on risk.
- While a long time to realise investment, equally significant investment will have a long beneficiary period. Significant investment in the 80's in Queensland in sending nearly all pathologists overseas to for 2 years to upgrade their qualifications and skills, saw this realised in

the handling of the emerging disease, Hendra virus and other incursions that occurred in the following 20 years.

- A principle to consider is that those creating the risk must make a funding contribution to biosecurity from prevention through to ongoing management.
- Where government and taxpayer funds are spent in biosecurity, this must be done transparently, equitably and with a view to maximising impact.
- Prevention is the best return on investment and to date, there has been more funding involved in response to disease incursions.
- The Queensland Biosecurity Strategy 2009-14 supported a risk-based decision making framework but this has not eventuated. Relevant comments from this strategy included:
 - Over the next five years, Biosecurity Queensland will be developing a risk-based decision-making framework that will provide for a more consistent, transparent, robust and fair allocation of resources against all these considerations.
 - While this framework is primarily about resource allocation within government, the underlying methodologies and tools for analysing and comparing risks are expected to have wider application. Opportunities for sharing this information and different approaches will be considered throughout the development of the new framework.
 - An important element of this work will be the identification, assessment and comparison of economic, social and environmental impacts of biosecurity events. While economic and social impacts can be relatively easy to identify, environmental impacts are often difficult to quantify and often not known until much later. Linkages will be made with other organisations to build a shared and coherent approach to this complex issue.
 - Biosecurity risks are increasing, services are changing and national cost-sharing arrangements are in place for many aspects of biosecurity. As such, the levels and mix of biosecurity investment in the state will continually need to be re-examined. Continuation of the significant investment in emergency response activities by government will be important and ways to increase resources into prevention, preparedness and surveillance activities will be explored.
 - There are many investors in biosecurity—public and private. As we move forward with more collaborative approaches to biosecurity, more flexible mechanisms by which partners can co-invest will need to be found.
 - The development of a risk management approach to biosecurity is likely to raise issues of what amount people or organisations who either exacerbate a biosecurity risk or significantly benefit from a biosecurity activity should contribute. These issues will need to be explored carefully over the next five years, particularly how they relate to any national agreements or legislative provisions.

Thank you for the opportunity to input into this very important Inquiry.

Yours sincerely

Jo Sheppard
Chief Executive Officer