

# Australian Meat Processor Corporation (AMPC) Submission to the Commonwealth Treasury

2022-23 Pre-Budget Submission

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## SUBMISSION BY

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## PURPOSE

This submission is made by the Australian Meat Processor Corporation to provide key insights on Q-Fever disease and the operation of the Australian Q-Fever Register in the context of potential implications on the health and wellbeing of Australia's regional communities. Specifically, AMPC provides the findings of an internal review conducted on the operation of the Q-Fever Register that considers the evolving prevalence of Q-Fever outside of the meat processing industry for consideration of the Australian Government in its 2022-23 Budget process.

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## Executive Summary

The Australian Meat Processor Corporation (AMPC) is a Rural Research and Development Corporation (RDC) that supports the meat processing industry throughout Australia. The AMPC's mandate is to provide research, development, and extension (RD&E) services that improve the sustainability and efficiency of the sector.

In 2004, AMPC (currently through AUS-MEAT Ltd) began maintaining the non-statutory Q-Fever Register (the Register), which stores the immune status of individuals in relation to Q-Fever including records of vaccination, immunity, and diagnosis. Q-Fever is a disease that can be spread to humans from animals, mainly from cattle, sheep and goats. As a result, people who work in the meat processing sector have historically been considered at a high-risk of contracting the disease. The Register was designed to centralise the process for screening workers in the meat processing industry and managing the risk of Q-Fever as a component of workplace health and safety in meat processing facilities.

While the Register continues to play an important role in mitigating the risks of contracting Q-Fever, there is clear evidence that the risk of infection extends well beyond the meat processing industry. The purpose of this submission is to present some of the key insights AMPC has garnered as a result of administering the scheme. These insights raise an important public policy question as to whether the meat processing sector is best placed to continue maintaining the Register.

## Q-Fever Register Key Insights

1

### CONTINUING ECONOMIC BENEFITS OF THE REGISTER

The Q-Fever Register avoids costs that would otherwise be borne by industry, government and individuals with a minimum cost saving of \$695,860 p.a. through avoided immunity testing. Considering the operating costs for the Register in 2020 (\$311,940), this equates to a minimum cost savings of \$383,920 and a benefit to cost ratio of 2.23.

2

### POSITIVE REGIONAL HEALTH OUTCOMES FROM THE REGISTER

The Q-Fever Register remains an important centralised source of health data, supporting the prevention of Q-Fever, a national notifiable (routine) and potentially deadly disease for those exposed to it who usually reside in regional communities. It ensures that existing recipients do not receive a life-threatening second dose of the vaccine.

3

### EVOLVING Q-FEVER RISKS AND VACCINE MONITORING NEEDS

The risk of contracting Q-Fever is not limited to the meat processing industry and there is expanded prevalence of the disease and use of the Register elsewhere in the community. In 2021, 37% of new registrants in the Register were not employees or contractors from meat processing plants - breaking the link between the Register and AMPC's mandate.




4

### BENEFITS OF INCLUSION ON AUSTRALIAN IMMUNISATION RECORD

Consistent with the Government's policy objective to expand the remit of the Australian Immunisation Record (AIR), engagement with vaccination and infectious disease specialists has confirmed that Q-Fever presents a strong case for inclusion on the AIR. This would result in a system that is more comprehensive, inclusive and accessible.

# What is Q-Fever?

**Q-Fever is an infectious disease caused by the bacterium *Coxiella burnetii*. The true cause of the disease was not discovered until the 1930s which is how it came to be known as “Query” Fever.**

<p><b>Prevalence</b></p> 	<p><b>Easily transmissible disease</b></p> <ul style="list-style-type: none"> <li>Q-Fever is spread to humans from cattle, sheep, goats, and from a range of other domestic and wild animals.</li> <li>People can become infected by being splashed with infected fluids or by breathing in infected dust.</li> </ul>	<p><b>High-risk population segments</b></p> <ul style="list-style-type: none"> <li>Abattoir and meat workers, livestock and farm workers, shearers, feedlot workers, veterinarians, wildlife workers, agricultural college staff and students, laboratory workers, animal hunters, and dog/cat breeders.</li> <li>Risk extends to all other workers and visitors that enter sites where Q-Fever may be present. Where contaminated dust is aerosolised family members of high-risk workers, people living near a high-risk industry are also at risk.</li> </ul>
<p><b>Impacts</b></p> 	<p><b>Mild but sometimes deadly disease</b></p> <ul style="list-style-type: none"> <li>Many infected people have no or few symptoms and make a full recovery.</li> <li>People who become sick show a severe flu-like illness lasting up to 6 weeks without treatment. Sometimes those infected will develop hepatitis or pneumonia.</li> <li>10-15% of patients who have acute Q-Fever can then develop chronic infections causing a range of health issues including endocarditis (heart problems).</li> </ul>	<p><b>Notifiable disease with public cost burden</b></p> <ul style="list-style-type: none"> <li>The disease has been classified as an Australian national notifiable (routine) disease since 2004.</li> <li>All confirmed cases must be reported to the relevant State or Territory authority within 5 days of diagnosis under the public health legislation.</li> <li>In the case of an outbreak, cases must instead be reported within 24 hours. A confirmed case requires either laboratory definitive evidence or laboratory suggestive evidence and clinical evidence.</li> </ul>
<p><b>Vaccination</b></p> 	<p><b>Vaccination Availability</b></p> <ul style="list-style-type: none"> <li>The most effective way to prevent Q-Fever is via the Q-VAX vaccine.</li> <li>The vaccine is highly recommended for all people who work in high-risk occupations.</li> <li>The vaccine is also recommended for everyone 15 years and over who has the potential to be exposed to Q-Fever in the environments in which they live or visit.</li> <li>Immunity to Q-Fever typically develops 15 days after vaccination</li> </ul>	<p><b>Vaccination requirements</b></p> <ul style="list-style-type: none"> <li>Before a vaccination, individuals must have blood and skin tests to check if they have been previously exposed to Q-Fever.</li> <li>People who have been previously infected or vaccinated should not receive a dose of the vaccination as they are likely to have a serious adverse reaction due to hypersensitivity.</li> <li>There are documented instances where people who have had a confirmed Q-Fever infection, when tested, have shown no response to skin testing. Because of this, the Q-Fever Register is an important step in preventing accidental second vaccinations.</li> </ul>

## **New vaccine under development**

A new Q-Fever vaccine commenced pre-clinical trials in August 2020 following a \$1.87 million funding injection from the Australian Government. The new vaccine is designed to be cheaper, easier to administer, and not require a Q-Fever antibody test before being administered. Trials are being conducted by DMTC in collaboration with the Department of Defence, Department of Health, and the Australian Rickettsial Reference Laboratory (a WHO collaborative laboratory).

# Operating the Q-Fever Register

## The Q-Fever Register

The Q-Fever Register was established in 2002 to help employers and workers prevent Q-Fever within the workplace. State-based work health and safety (WH&S) rules place a duty on employers to ensure the health and safety of their workers. This can include refusing entry to the workplace if not vaccinated.<sup>1</sup>

The Register stores both vaccination records as well as skin test results. Individuals on the register can quickly check their Q-Fever status or provide authority for their employers to check. This allows them to commence work without any of the Q-Fever testing requirements. If an individual is not registered, they will need to be re-tested each time they change jobs within high-risk industries. Under WH&S legislation, there is no legal requirement for individuals to store their immunity status on the Register. Inclusion on the Register is industry led.

The Register collects two types of information. Information which identifies an individual, and information about an individual's Q-Fever immune status. Identification information includes: first name, middle name/s and surname, data of birth, gender, and a secret question (and answer). Immune status information includes date of any vaccination, data of any screening test (test type and result), and Q-Fever immune status. An individual's immunity status can only be accessed by the individual or (with permission) by the individual's employer or medical practitioner (after completing Authorised User registration).

The Register has strict privacy controls and is stored in a secure database accessible online. Any information that is uploaded or downloaded from the Register is encrypted to ensure it is kept private and secure. An Authorised User can access an individual's information if they know the individual's name and date of birth or Q-Fever Register Number. The Q-Fever Number is a unique number for each individual on the Register. In the past, individuals were issued a credit card sized Q-Fever Card. After April 2018, the Q-Fever card was replaced by an eStatement.

The Q-Fever Register is funded, owned, and administered by AMPC. The Register is operated by the independent data manager AUS-MEAT Limited, a service provider company jointly owned by AMPC and Meat and Livestock Australia (MLA). Over the years, AMPC has been able to fund the management of the Q-Fever Register, including hosting, maintenance and support, as an R&D project. However, the link between the Register and R&D is tenuous.

***It cost AMPC \$311,940 to operate the Register in 2020. AMPC does not receive any matched funding from the government for this purpose.***

The Register is a non-statutory Register - no formal law or statute led to its establishment. Instead, the Register was created due to a need within the red meat industry to better manage Q-Fever. Inclusion into the Register is not legally mandated but rather industry led. As the dynamics of the Register have evolved and become a broader public health benefit, the issue of voluntary inclusion risks limiting the utility of the Register.

## Benefits to Australia

Recent analysis has demonstrated that the Register is continuing to provide a net benefit through avoiding costs that would otherwise be paid by the red meat industry, government and individuals. In 2020, usage of the Register resulted in minimum cost savings of \$695,860 through avoided immunity testing. Considering the operating cost in 2020 (\$311,940), the Register leads to savings of \$383,920, a benefit to cost ratio of 2.23.

When onboarding employees, processors are required by work health and safety regulations to confirm the Q-Fever immunity status of workforce entrants. In the absence of a Register, employees must undergo two consultations with a general practitioner, a screening test and be prevented from commencing work for a minimum waiting period of 14

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<sup>1</sup> 'Q Fever', New South Wales Government SafeWork (<https://www.safework.nsw.gov.au/hazards-a-z/diseases/q-fever>)

days. This equates to substantial testing costs and indirect productivity losses. In effect, the Register circumvents the need for screening tests and doctor's consultations, delivering cost savings.

*Table 1: Required Pre-Employment Testing and Medical Costs in the absence of the Q-Fever Register*

Cost Category	Costs
Two Medicare Rebated GP Consultations	\$77.50
Skin Test	\$40.00
Blood Serum Test	\$26.00
<b>Total</b>	<b>\$143.50</b>

## Evolving Dynamics of the Register

### Shifting Q-Fever Risk Groups

The current Register model provides direct benefit to the meat processing industry and government. However, stakeholder consultation and registration trends reinforce that the Register is perceived to be outside the remit of the processing sector. While the industry acknowledges that meat processing presents a high-risk for exposure to the disease, infection is also widely prevalent across rural areas and for individuals who come into contact with livestock. There exist equal or greater risks of exposure outside of the industry, as set out in *Table 2* below.

*Table 2: Evidence of Q-Fever prevalence outside the meat processing industry*

<b>Rural populations</b>	Analysis of 2,122 samples from a serum bank in QLD, showed 5.3% of people from rural areas were positive to Q-Fever. This indicates that many cases may go undiagnosed due to its presentations being non-specific, variable and often misdiagnosed.
	An Outbreak of Q-Fever in a remote NSW rural town, where the infected individuals only had exposure to dogs and kangaroos on a residential property.
<b>Farm and livestock workers</b>	NSW case notifications (1993 – 2007) showed Q-Fever notifications dropped significantly for 'Abattoir/Meat' workers and increased significantly for farm and livestock workers.
<b>Veterinary clinics</b>	Outbreaks of Q-Fever in humans reported at an animal refuge and veterinary clinic in southeast Queensland in 2016.
<b>Cat Breeders</b>	A Charles Sturt study showed cat breeders as one of the highest at-risk groups in Australia.
<b>Landscaping</b>	Two cases of Q-Fever linked to workers mowing a hospital ground and golf course containing grass heavily contaminated with Kangaroo faeces.
<b>No known animal exposure</b>	60% of acute cases treated at Townsville hospital having no clear animal or occupation exposure; individuals only living on the outskirts of a city area.

The AMPC engages regularly with stakeholders across the meat processing sector. Many of AMPC’s stakeholders are aware that Q-Fever poses a risk beyond the industry and believe administration of the Register by an industry group may no longer be appropriate. Additionally, the AMPC considers there may be some risk that the broader community will incorrectly perceive that the risk of contracting Q-Fever is limited to the meat processing sector and fail to take appropriate steps towards immunisation.

## Stakeholder Case Studies

### Vaccine Manufacturer

Seqirus, a CSL company, supports the Australian Government through the onshore manufacture and supply of the Q-VAX® vaccine. The vaccine is the only TGA-approved human vaccine for Q fever and has been providing Australian adults at risk of developing Q-Fever with a defence against infection since 1989.

“We work in partnership with experts and organisations to support the education of healthcare professionals and the public to reduce the burden of the disease. **We regularly have healthcare professionals questioning why Q-Fever vaccine is not included on the Australian Immunisation Register given that Q-Fever is a notifiable disease in all states and territories in Australia.**

As a company dedicated to improving public health, we believe that **the inclusion of the Q-Fever vaccine onto the Australian Immunisation Register - to record alongside vaccines for other notifiable diseases – will enhance public health outcomes for Australians.**”

Director of  
Public Policy

CSL

Seqirus has reported to the AMPC that over recent years, several health professionals and Q-Vax providers have advocated to them that the Q-Vax vaccination event should be recorded in the Australian Immunisation Register. Because Q-Vax is a once-in-a-lifetime vaccination, these practitioners have communicated to Seqirus that a patient and their healthcare provider should be able to check with a high degree of certainty if a patient has previously received the vaccination. As the Q-Fever Register is a voluntary scheme, there is concern that the Register is not sufficient for this purpose.

### Vaccine Providers

Dr Gavan  
Schneider

General  
Practitioner

“As a Q-fever vaccinator I have been trying to register QVax vaccination events on the Australian Immunisation Register [...] now there is a push for the AIR to record the immunisation status of all Australians **why is this immunisation, relevant to rural Australians, being left out?**”

Dr Schneider is General Practitioner located in Portland (rural NSW). In his view, exclusion of the Q-Fever vaccination from the AIR does not support patient outcomes in his community. He has indicated that:

- Q-Vax is once in a lifetime vaccination so a patient and their healthcare provider should be able to check if it's been given or not;

- The Australian Q-Fever Register has some strong privacy guards which can make accessibility an issue for some patients;
- The Q-Fever Register is voluntary, and therefore may not be a complete record of immunity history for the disease;
- The current guidelines around COVID-19 vaccination obliges health practitioners to check the AIR and ensure there are no recent other vaccinations before the COVID-19 vaccination is administered. As a result, it would be beneficial if the Q-Vax was listed in the AIR to prevent adverse impacts associated with receiving both vaccines in close time proximity.

## Changes in Registrations

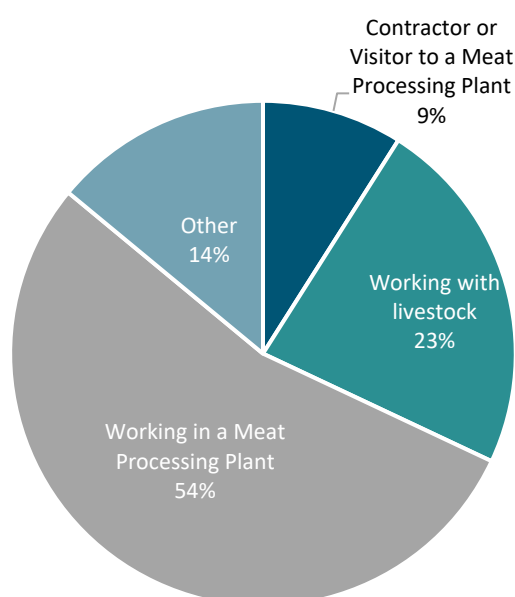
Between January 2013 and April 2021, 159,489 individuals registered their Q-Fever status on the Register. New registrations have grown consistently up until 2020-21. The slowdown of registrations in 2020 and 2021 reflects the impact of COVID-19 has had on Australian industry. New Q-Vax registrations in the red meat industry are connected to the number of new workforce entrants and signal labour force trends. See *Table 3* below.

*Table 3: Q-Fever Register: New Registrations from 2013 to 2021.*

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Total</b>	12,584	16,263	19,712	18,775	21,059	21,855	26,239	17,923	18,193

Even more importantly, Q-Fever is increasingly penetrating rural communities and the general community is becoming more aware of Q-Fever. This has turned Q-Fever from a red meat industry disease into a community health issue. **Of new registrations completed in 2021, 37% of new registrations were not employees or contractors from meat processing plants.** See *Figure 1* following.

*Figure 2: Q-Fever Register: Patient Registration by Employment Type (2021)*



Given the non-mandatory nature of the Register, it is likely that there are even more individuals who have received the vaccine outside the meat processing industry. Therefore, these statistics may not fully reflect the evolving prevalence of the Q-Fever vaccine in the broader community.



## Potential Future Needs of the Register

### Funding and Governance Requirements

As noted previously, the cost of operating the Register in 2020 was \$311,940. In the absence of any matched funding from the Federal or State Governments to maintain the Q-Fever Register, this cost is borne by the meat processing industry. While the scheme has its origins in assisting employers and employees in the meat processing industry mitigate the risk of contracting Q-Fever as a component of workplace health and safety, data in this submission demonstrates that the risk of infection has moved beyond the industry. This raises an important public policy question as to whether the meat processing sector is best placed to continue to maintain the Register. It is highlighted that there is no clear link between the Register and the R&D mandate of the AMPC. It remains unclear whether AMPC's continued control over the Q-Fever Register represents an appropriate system governance to oversee this important community health issue.

Given the increased use of the Register outside of the meat processing industry, a national approach, that is no longer tied to one industry, could provide increased health and wellbeing benefits for regional communities. However, the key fiscal benefit of the Q-Fever Register for the meat processing industry has been the displacement of pre-employment testing and medical costs associated with demonstrating a worker's immunisation status. The ease of access for both registrants and registered organisations using data in the Registry in addition to maintaining a high degree of data integrity and security has been successfully achieved by the AMPC. Any consideration given to changing the administrative arrangements for operating the Q-Fever Register should ensure that accessibility to immunity status information, particularly for use in high-risk work environments, is maintained. To this end, a range of stakeholders have been identified for whom inclusion of Q-Fever immunity status information in the Australian Immunisation Register may be appropriate to offer such accessibility.

### AIR inclusion would align with Government's Policy

The gold quality standard for immunisation reporting is the Australian Immunisation Register (AIR). The AIR is a national register that records vaccinations given to all people of all ages in Australia. After a February 2021 amendment to the AIR Act,<sup>2</sup> registered vaccine providers have the legal obligation to report all COVID-19 vaccines, influenza vaccines, and vaccines administered under the National Immunisation Program (NIP).<sup>3</sup>

In response to the COVID-19 pandemic the Australian Government has championed the role of the Australian Immunisation Register as a "whole-of-life, national immunisation register which records vaccines given to all people in Australia. This includes vaccines given under the NIP, through school-based programs and privately, such as for seasonal influenza or travel."<sup>4</sup>

In recent legislative amendments to the AIR Act, Minister for Health the Hon. Greg Hunt MP noted that the AIR:

"... provides an ICT platform incorporating themes of accessibility and usability capable of integrating with the My Health Record system and the Department of Health's Enterprise Data Warehouse, **with the ability to be expanded to support further vaccination initiatives in the future.** The AIR operates with clinical information systems to enable healthcare providers to provide data to the register easily and receive information back easily to better inform clinical decision-making. [...]"

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<sup>4</sup> Commonwealth, *Parliamentary Debates*, House of Representatives, 3 December 2020 (Greg Hunt, Minister for Health).

The government is serious about ensuring **the AIR maintains a complete and reliable national dataset**. Compliance activities will occur for those vaccination providers who do not comply with the new arrangements”<sup>5</sup>

On this basis, the AMPC would welcome an opportunity to engage with the Australian Government and the Department of Health to discuss the potential integration of the Q-Fever Register into the AIR, supporting the Australian Government to achieve a ‘complete and reliable national dataset’ for immunisation.

Engagement with vaccination and infectious disease specialists has confirmed that Q-Fever presents a strong case for inclusion on the AIR alongside these other vaccines. A University of Sydney paper on the seroprevalence of Q-Fever antibodies estimated 5% of the Australian population has been exposed to the disease. This reflects a potential infection of more than 1.28 million Australians. Due to the national dependence on industries with a high Q-Fever risk and the increasing prevalence of the notifiable disease in non-red meat settings, the Q-Fever vaccine should exist at the same level of public importance that current NIP and AIR vaccines receive.

At a legislative level, a simple change to the *Australian Immunisation Register Rule 2015* would create an obligation to include the Q-Fever vaccine in the AIR. However, there are several practical reforms that would need to accompany this change for the Register to be appropriately integrated into the AIR.

## The Pathway to AIR Inclusion

AMPC acknowledges that some reforms may be needed to integrate the Register into the AIR. These reforms would focus on altering the Q-Fever vaccine administration process and AIR infrastructure enhancements and, based on some initial scoping discussions, would include:

- Cleaning and standardising the Register’s existing data for integration into the AIR;
- Registration of Q-Fever vaccine providers as AIR providers;
- Integration between AIR and Q-Fever clinical information systems;
- Additional data capturing and quality standardisation across Q-Fever patient encounters; and
- Additional AIR system capabilities to record Q-Fever serological and skin-test results.

AMPC is committed to continuing scoping out the potential avenues to improve the Q-Fever Register including reforms that might be needed to transition the Register into the AIR.

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<sup>5</sup> Ibid.

## Conclusion

AMPC has successfully administered the Q-Fever Register for more than 18 years. The Register has been an important tool for the red meat processing industry. Recently, Q-Fever has spread into occupations and communities beyond the red meat processing industry. This has led to a broadening of engagement with the Register, inconsistent with the current 100% AMPC funding model.

As use of the Q-Fever Register continues to adapt consistent with current trends, it may require additional support from Federal and State governments to remain fit-for purpose for the broader community and high-risk industries. In particular, the Register could be upgraded into a system that is more comprehensive, inclusive and accessible. This would result in greater use and improved public health outcomes both inside the meat processing industry and other sectors that are vulnerable to Q-Fever.

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The risk of contracting Q-Fever is not limited to the meat processing industry and there is expanded prevalence of the disease and use of the Register elsewhere in the community. In 2021, 37% of new registrants in the Register were not employees or contractors from meat processing plants - breaking the link between the Register and AMPC's mandate.

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### BENEFITS OF INCLUSION ON AUSTRALIAN IMMUNISATION RECORD

Consistent with the Government's policy objective to expand the remit of the Australian Immunisation Record (AIR), engagement with vaccination and infectious disease specialists has confirmed that Q-Fever presents a strong case for inclusion on the AIR. This would result in system that is more comprehensive, inclusive and accessible.