

CATERING FOR COMPULSORY DESTRUCTION OF STOCK IN AUSTRALIAN AQUACULTURE THROUGH GOVERNMENT AND INDUSTRY COST SHARING AGREEMENTS

Dr Alistair McIlgorm, Dominion Consulting Pty Ltd, mcilgorm@dominionconsulting.com.au
Dr Ramana Rallapudi, Dominion Consulting Pty Ltd, rallapudi@dominionconsulting.com.au

ABSTRACT

Governments have a responsibility to protect their aquatic aquaculture environment from exotic disease incursion. A primary tool on discovering introduced disease is the use of compulsory destruction applied by the veterinary arm of government. While the country's aquatic environment gains a public good benefit from this step, the impacted business is faced with total loss and faces circumstances excluded from aquacultural insurance policies due to sovereign risk. The paper describes the system being proposed in the Australian aquaculture industry that would enable the cost of compulsory destruction incidents to be shared between industry and government, as happens in the terrestrial sector in Australia. However the diversity within the aquaculture sector and the attitudes and risk management perspectives of aquaculturists, pose some interesting challenges. Research on economic and risk management issues could assist in this developing policy area.

Keywords: aquaculture, Australia

INTRODUCTION

Governments and the aquaculture industry have a common interest in protecting their national aquatic animal health from the entry of exotic diseases which can have economic impacts and lead to exotic diseases becoming endemic. Part of the policy defence mechanism against exotic disease incursion, is compulsory destruction of animals with, or that may develop, disease. Compulsory destruction of stock by government veterinary officers gives the chance to protect the whole aquatic animal sector from exotic disease, but usually at the cost of one or several producers who have their stock destroyed. This opens up issues of insurance cover, market failure, compensation, but also the potential to develop a cost sharing arrangement between industry and government for such circumstances. This study examines experience in Australia in proposing the development of an appropriate cost sharing agreement. This could be of benefit to other countries facing similar policy issues.

BACKGROUND

Australia's National Strategic Plan for Aquatic Animal Health 1998-2003 [1] was a joint initiative of government and industry – overseen by the Fish Health Management Committee (FHMC) – and comprised eight priority programs. These programs aimed to maximise Australia's ability to control aquatic animal disease outbreaks, maintain market access, support quality assurance and improve the productivity and sustainability of Australia's aquatic animal production industries.

In 2002 the AQUAPLAN "*Resources and Funding Consultancy*" [2] identified gaps in aquacultural insurance and recommended a review of insurance and potential options for dealing with compulsory

destruction. The subsequent study “*Funding and Compensation for Compulsory Destruction of Aquatic Animal Stock and Crop Loss Coverage*” [3] found that:

- Compulsory destruction of stock to contain disease is exempted from standard aquaculture stock mortality insurance policies; and
- Related expenses could be covered through a cost sharing arrangement (CSA).

The study recommended that a cost effective pathway to the establishment of a CSA be investigated and illustrated through the use of a major sector of aquaculture as a pilot study. In 2003, the study “*The development of a cost-sharing agreement and its application to the salmon industry: a pilot study*” [4] examined the feasibility of the salmonid sector joining Animal Health Australia (AHA) and accessing the terrestrial Emergency Animal Disease Response Agreement (EADRA) program to obtain salmon industry cover in the event of an emergency disease outbreak. The study recommended two options:

- Sectors of aquaculture join AHA and become signatories to the existing EADRA; or
- A separate Aquaculture CSA is formed, administered by AHA, or independently.

Given these background studies, the aquaculture industry, or sectors of it, can decide on the most appropriate option for establishing cost sharing arrangements within Australian aquaculture industries.

This paper outlines the development of the proposed aquaculture CSA framework. There are special circumstances where government may be liable for compensation, but generally cost sharing is envisaged as both industry and government are joint beneficiaries of aquatic animal health. The study examines insurance cover available to aquaculturists, exemptions to cover and market failure in the provision of insurance cover.

The use of compulsory destruction by government to control disease is reviewed and the concept of adapting the CSA currently used in the Australian terrestrial livestock industries for aquaculture is examined. The development of an aquaculture CSA involves systemic, economic, administrative and risk management issues for both government and industry. This may be an area for economists to contribute to policy development.

AQUACULTURE STOCK MORTALITY INSURANCE¹

Aquaculture Stock Mortality Insurance is relatively new in Australia, and recognises both “Named perils” and “All risks” of mortality. The insurance market seeks to assess risks and devises policy structures to enable an equitable premium for each level of risk exposure to be established [5]. Actual and proximate causes have to be clearly established for a claim to be met. Primarily, Insurance Brokers, service the needs of customers by arranging insurance cover with insurers and underwriters, although some Underwriting Agencies prefer to deal with the client on a direct basis.

What risks are covered?

For any Aquaculture venture to be considered as an “Insurable risk”, Underwriters require that the aquaculture business (a) has a suitable location (b) users appropriate technology (c) has experienced farm

¹ In the insurance industry the term “Aquaculture stock mortality insurance” is used in preference to “Aquaculture insurance”.

management (d) is economically viable. Once these criteria are accepted by the Underwriters, consideration is given to the level of cover that will be issued. The most common stock-cover provided is in principle an “All Risks” of mortality cover with defined exclusions. “Named Perils” cover is only for the “Named Peril/s noted on the Certificate of Insurance”.

Standard Exclusions

The main basic standard exclusions are presented in Box 1:

Box 1: Standard Exclusions to an “All Risks” and a “Named Perils” Policy for Loss of Stock [3]

Standard Exclusions to an “All Risks” and a “Named Perils” Policy for Loss of stock arising from: (1) an Intentional Destruction order whether by Government or any party having jurisdiction in the matter; (2) mysterious disappearance; (3) political risks of any nature (War, Terrorism, Invasion, Strike etc); and (4) non-compliance with stocking density limits and minimum water flow rates. In addition, Insurers may include all or selected exclusions from the list below loss of stock arising from: (a) cannibalism or sexual maturity; (b) unexplained shortages; (c) harvesting; (d) malicious acts by the insured; (e) disease (on specific occasions); (f) parasitic infestation; and (g) algal blooms.

Examples of perils covered (but not limited to) would be loss of stock arising from: (a) storm, lightning, cyclone; (b) changes in the pH or salinity of the water; (c) predation; (d) disease; (e) malicious acts by persons unknown to the insured; (f) machinery breakdown (land based operations); (g) pollution; (h) parasitic infestation; and (i) algal blooms.

All policies include certain obligations, or warranties, that must be fulfilled by the Insured such as (1) proven and sound stock management methods; (2) regular stock inventory control; (3) furnishing of monthly stock declarations to the Insurers/ Underwriters; (4) application of proven loss – prevention methods; (5) establishing an emergency plan; and (6) immediate notification to Insurers/ Underwriters in the event of a potential loss.

Dependent upon the risk, species, and client history, Insurers may also include their own specific exclusions to any policy. Failure by the insured to comply with any of the above conditions may void the contract of Insurance. “Intentional destruction” to prevent disease is not covered by stock mortality policies.

Aquaculture Stock Mortality Insurance in Australia

The aquaculture industry in Australia is diverse and has a range of attitudes to risk management. According to [6], of MLH Insurance Brokers, *“Most Australian aquaculturists are not merely under-insured..., they're not insured at all”*. According to [7] *“The need for insurance protection developed to provide security to investors who provided large capital”*. An insurance industry commentator in Australia in 2003 estimated that about 50% of Aquaculture ventures are not insured due to varying reasons, primarily: (a) Aquaculture companies were unaware such a cover was available; (b) The high cost of insurance was prohibitive; (c) Aquaculture companies were confident they had sufficient management in place to reduce the incidence of loss and such self insured; and (d) Underwriters were not prepared to insure a particular species. Internationally, other authors are investigating insurance in aquaculture also [8,9].

COMPULSORY DESTRUCTION AS A DISEASE MANAGEMENT TOOL

Compulsory destruction is often favoured by veterinary agencies as a tool to deal with the incursions of exotic infectious diseases. Once identified, a decision is made to cull the affected animals in such a way as to remove the disease. If this can eradicate the incursion, then the rest of the industry and community benefits at the price of the removal of one or several producers.

Can the Insurance Industry Provide Cover for Compulsory Destruction by Government?

Feedback from an insurance contact in the London market suggested cover was possible, but that “infectious disease” would be too broad a definition and there would be a need to be more specific in naming the diseases. Sunderland Marine has recently suggested that the provision of an insurance product to cover the risk of intentional government destruction would be too expensive for producers [10]. The element of sovereign risk is of concern to industry and insurers.

Aquaculturists in Scotland and New Brunswick, Canada, suggest that if specific insurance cover for compulsory destruction had been in place, this may have led the government to call for compulsory destruction earlier, than in an uninsured market where government may be expected to provide compensation. However, government in Australia is concerned that without clear information on compensation arrangements following compulsory destruction, farmers may delay reporting infectious disease outbreaks and may compromise the nation’s aquatic animal health.

Market Failure and the Need for Government Involvement

It appears that extension of aquaculture stock mortality insurance products to cover intentional/compulsory destruction may be an area of market failure. Only 50% of producers have stock mortality insurance and no cover is available at reasonable cost for compulsory destruction.

The public good is the aquatic animal health of Australia. If aquaculture enterprises are not insured the responses to disease may be slow, as uninsured businesses may withhold information on disease outbreaks. Government intervention to protect a public good is consistent with economic reasoning for intervention in a free market. The intervention in aquaculture is via a cost sharing agreement for aquaculture concentrating on compensation for compulsory destruction of stock.

The aquaculture sector sees the need to address government initiated compulsory destruction via a Cost Sharing Agreement (CSA) as a priority. Insurance is available for stock mortalities caused by disease and aquaculturists can choose to take insurance cover, whereas compulsory destruction is out of their control. The study will now examine CSAs and their applicability to Aquaculture.

WHAT IS A COST SHARING AGREEMENT?

The costs of a disease incident can be shared between industry and government providing there is an agreement in place to do so. In Australia the terrestrial animal Government Industry Cost Sharing Agreement is in place being administered by Animal Health Australia (AHA), as part of public animal health management policy.

Animal Health Australia has three key programs:

- Animal Health Services, which aims to improve the national capability, standards and performance of Australia's animal health system;
- Animal Disease Surveillance, which provides a nationally integrated, innovative surveillance system to underpin trade; and
- Emergency Animal Disease Preparedness, which enhances management approaches to deal with animal disease emergencies, including cost sharing agreements.

The cost sharing agreement has to be seen in the context of this aquatic animal health policy structure.

The Terrestrial Emergency Animal Disease Response Agreement

The terrestrial animal industries cost sharing agreement framework, has the Emergency Animal Disease Response Agreement (EADRA). In the event of a disease incident, the extent of compensation and sharing of disease incident costs between government and industry depends on the categorisation of the disease.

The monetary contribution by government to the scheme depends on the effect of the disease on human health, the environment and the community benefit. There are four categories of disease in terrestrial animals that determine the level of industry and government contribution to emergency response as reported in Box 2 below.

Box 2: The Categorization and Funding Principles of Terrestrial Animal Diseases in the EADRA

Category 1- 100% Government Funded: Category 1 diseases are ones that predominantly seriously affect human health and/or the environment (depletion of native fauna) but may only have minimal direct consequences to the livestock industries.

Category 2 – 80% Government and 20% Industry Funded: Category 2 diseases have the potential to cause major national socio-economic consequences through very serious international trade losses, national market disruptions and very severe production losses in the livestock industries that are involved. This category includes diseases that may have slightly lower national socio-economic consequences, but also have significant public health and/or environmental consequences.

Category 3 – 50% Government and 50% Industry Funded: Category 3 contains those diseases whose control is of moderate public benefit and have the potential to cause significant (but generally moderate) national socio-economic consequences through international trade losses, market disruptions involving two or more states and severe production losses to effective industries, but have minimal or no affect on human health or the environment.

Category 4 – 20% Government and 80% Industry Funded: Category diseases are those that could be classified as being mainly production loss diseases. While there may be international trade losses and local market disruptions, these would not be of a magnitude that would be expected to significantly affect the national economy. The main beneficiaries of the successful emergency response to an outbreak of such a disease would be the affected livestock industry(s).

Under the EADRA a disease incident is responded to in the knowledge that a prompt response will be taken. The terrestrial animal disease is categorized and the cost sharing proportion between government and industry is applied to the division of the incident costs. The terrestrial EADRA is working in the major animal industries in Australia and is a template for aquatic animal diseases.

Developing an Aquatic animal CSA

There would be several stages in developing an aquatic animal EADRA equivalent:

- Admission by an industry sector to AHA and to the EADRA deed;
- Categorisation of aquatic animal diseases;
- Establishment of an incident levy system for incidents among industry;
- Ratification of the agreement by all Government and industries in the agreement; and
- Operation of the aquatic EADRA within a suite of animal health programs.

The aquatic industries would only wish the CSA to be applied to incidents involving compulsory destruction, whereas the existing terrestrial agreement covers disease incidents also.

What would the financial arrangements for Compulsory Destruction be?

The Salmon sector pilot study examined the range of impacts from compulsory destruction incidents following a disease incursion. The total cost of an incident is generally related to the Gross Value of Production (GVP) of the industry and the National Management Group, who would control the compulsory destruction incident, have an initial ceiling of 1% of GVP that can be applied to paying the cost of an incident.

The Salmonid industry the pilot study [4] indicated the potential range of costs to industry and government from an incident of 1% GVP, in the \$173m GVP of the salmonid sector in Australia as reported in Table 1.

Table 1: The Potential Range of Costs from an Incident of 1% of the \$173m GVP of the Salmonid Sector in Australia

State GVP	WA	SA	Vic	NSW	Tas	C'wlth	Total
% of National GVP	1.5%	0.9%	3.5%	0.9%	43.4%	50%	100%
1% incident cost							
Cat 1: Govt 100%	25,085	14,705	59,685	14,705	750,820	865,000	1,730,000
Cat. 2 Govt 80%	20,068	11,764	47,748	11,764	600,656	692,000	1,384,000
Cat. 2 Industry 20%	5,017	2,941	11,937	2,941	150,164	173,000	346,000
Cat. 3 Govt 50%	12,543	7,353	29,843	7,353	375,410	432,500	865,000
Cat. 3 Industry 50%	12,543	7,353	29,843	7,353	375,410	432,500	865,000
Cat. 4 Govt 20%	5,017	2,941	11,937	2,941	150,164	173,000	346,000
Cat. 4 Industry 80%	20,068	11,764	47,748	11,764	600,656	692,000	1,384,000

The cost of the incident \$1,730,000 (1% of GVP) is shared between state and Commonwealth governments only in a category 1 disease. For a category II disease industry pays 20% of the cost, the remaining 80% being divided among governments. Industry divides the 20% among their members on a GVP or other agreed basis. For a category 3 disease, industry pays 50%. In all allocations between states,

or within industry, the liability is calculated by the GVP of the state production, or by the production of the industry sector. Category 4 is not shown as industry do not envisage any benefit in paying 80% of low impact disease incidents believing these can be covered by insurance.

Examining the Steps in Building an Aquaculture Industry CSA

Administrative structure

The need for an Aquatic CSA has been evident for some time, but the establishment of it has several issues to address. There are options for establishment:

- go with the existing terrestrial animal CSA with aquatic animal species added - Under this option industry negotiate with Animal Health Australia and seek admittance to AHA, then the terrestrial animal CSA. Part of this will require categorization of aquatic animal diseases;
- have a separate administered aquatic CSA - Previous studies have indicated the cost of a separate administration could be prohibitive, though a compromise would be a separate aquatic animal CSA administered by AHA.

Disease categorization

Categorization of aquatic animal diseases is at the core of the compensatory mechanism in the CSA. Under the 4-category framework for terrestrial diseases, aquatic animal diseases tend to fall into category 2, or more probably 3. Aquatic diseases do not directly affect humans and thus category 1 is an unlikely categorization. Disease categorization would have to be investigated further in subsequent studies. The category applied to aquatic animal diseases will be central to developing a workable aquatic animal CSA.

Establishing the levy

The formation of a functioning cost sharing agreement requires a national body for an industry sector to be part of the administrative arrangements and to raise and pay membership fees. Currently most aquaculturists are in loosely supported industry associations and a new national industry sector entity is needed for the legal requirements of the CSA. In addition, the sharing of incident costs among industry requires members to be legally bound to repay incident costs after a compulsory destruction event.

Gaining industry participation requires the use of Commonwealth primary producer legislation, which enables an industry sector to impose a levy for the benefit of the industry, providing the 70% of producers support the proposal. In the salmonid and other aquaculture sectors, this degree of unity may be difficult to obtain. The small aquaculture business may be intimidated by the thought of being liable for a compulsory destruction incident across the continent. There is a need to educate producers on the benefits from cost sharing and the potential liability, which is limited by the size of the incident and their proportional part of national GVP.

DISCUSSION – MANAGING DISEASE RISK IN AQUACULTURE

The admission of an aquatic animal industry sector into a cost sharing agreement is driven by the desire to have cover in case an exotic disease episode leads to the compulsory destruction of fish stock, which is usually the last resort.

There are inherent risk management assumptions made that compulsory destruction is able to eradicate exotic diseases when they occur. The effectiveness of compulsory destruction in the aquatic environment

for a range of cultured species is assumed, but it is likely to work more effectively in some sectors more than others.

The risk to government is to have no workable policy in place in respect of compulsory destruction and hence in the event of disease incursion, the capacity to move quickly and arrest the spread of the disease is compromised. A long battle for compensation may occur with industry. In this situation industry may be reluctant to declare infectious diseases due to the fear of compulsory destruction by government.

The risk to industry is both from disease and sovereign risk in respect of the actions of government. Industry risk management practices in aquaculture appear to be poorly developed, relying on good husbandry and the fact that previous years have been without incident. Insurance cover is used by 50% of Australian aquaculturists and does not cover compulsory destruction. The development of the CSA requires each industry sector to obtain 70% support to enter a levying system to enable industry to pay back the costs of an incident. Some industry members will see this as another potential liability on the business balance sheet. However it may be that a well-organized industry sector can educate members towards the benefits of the CSA.

The CSA also tends to be seen as a compensatory mechanism only. It is part of a national fish health system which aquaculturists will increasingly have to work within as part of a wider risk management framework. For example, in complying with national aquatic animal health standards, the risk of exotic disease incursion is reduced. The sovereign risk associated with compulsory destruction makes it a perceived risk for aquaculturists. There is little formal material on the risk attitudes of aquaculturists and this requires more research.

Having a CSA in place provides industry and government with the benefit of having a framework for disease incursion incidents and it also fits in with the joint responsibility of aquatic animal health monitoring arrangements. To the industry it is a form of government-subsidized insurance for incidents in which government is protecting the public good of aquatic animal health.

However there are significant inhibitors to the formation of a viable CSA:

- Industry have a poor record in using insurance cover for disease - why should this be different for a CSA?;
- The aquaculture industry is not a set of uniform industries, or a united sector (one species sector versus a national Australian industry approach) and tends to be concentrated by species in different states of Australia, not lending itself to united national approaches;
- Compulsory destruction may work differently in different aquaculture sectors; for example - how densely aggregated are farms, or fish pens in different sectors? Or are finfish less susceptible to disease than crustaceans?; and
- The current government disease categorization framework prioritises human health and national socio-economic impacts - aquatic disease does not tend to impact human health and few aquaculture industries are of a nationally impacting scale.

Timely implementation of compulsory destruction may be able to arrest diseases that have the potential to significantly erode aquaculture production in Australia. In this case the societal cost-benefit ratio, is the cost of the intervention today, compared with the benefits of the present value of the stream of production that would have been lost to disease through time.

The cost of the compulsory destruction for the protection of Australia from exotic disease incursion may not be seen by the individual producer as being an effective investment. The same market failure and risk

management approach that aquaculturists portray in insurance issues may prevail. The onus is now on industry to step up to the negotiating table with AHA, but these background market failures and poor history of collective industry initiatives, suggests that government may have to keep moving the process along.

The economic loss from not addressing exotic disease incursion could be substantial. The Import Risk Assessment debate [11] suggested that *“the major salmonid industries would not be viable if important salmonid diseases were to become established in Australia”*. In regard to losses from disease incidents, [11] state that from experience reviewed overseas, *“commercial production losses of around \$22 million would not be out of the ordinary”*. We would like to think that timely and effective compulsory destruction could avert such a level of impact. It is up to industry to pursue a cost sharing agreement with government for such instances.

CONCLUSIONS

The aquaculture sector as a food producing industry must move to ensure aquatic animal health and develop a policy framework to protect production by minimizing the risk from exotic disease. An ongoing system has to be put in place and is part of the role of government, but has cost implications for industry also.

Industry now has the choice of progressing cost sharing mechanisms to address the risk posed by compulsory destruction. The costs are some annual fixed membership fees and having a financial liability for the business, should a disease incident occur and repayments have to be made.

The issue comes back to risk management. What is known of the industry’s risk management perspective would suggest that without surety of substantive payments from government for compulsory destruction incidents when exotic aquatic disease occurs, it is unlikely that most of industry would venture into the CSA arena. However there remains the possibility of a sector of aquaculture coming forward, but it is likely that any categorization of animal diseases for the aquatic sector would have to be significantly more responsive to the needs of the aquatic animal industry than the terms currently seen in the terrestrial animal CSA. The lack of use of insurance in the aquaculture industry suggests that protection of national aquatic animal health may come at a higher price than government are currently wishing to pay under the prospective disease categorizations for aquatic animals if analogous to the terrestrial agreement. However the size of the aquatic health public good and the private benefits derived from this suggest that there are incentives for all parties to negotiate a cost sharing agreement for aquatic animals in Australia.

Research is recommended into:

- Use and appropriateness of compulsory destruction to control exotic disease incursion in different sectors of aquaculture.
- The risk management practices and perspectives of Australian aquaculturists.
- The costs and benefits of protecting the aquatic animal industries from exotic disease incursion.

DISCLAIMER

The authors thank the Australian Government’s Department of Fisheries and Forestry (AG-DAFF) Aquatic Animal Health section and the Funding of the Fisheries Research and Development Corporation (FRDC) for support in undertaking the research. We thank Dr Eva-Maria Bernoth, Dr Iain East of DAFF and Mr Pheroze Jungalwalla of the Tasmania Salmonid Growers Association.

However, the views represented in the paper are those of the authors alone, and should not be taken to represent Government policy, the views of the AG-DAFF, the FRDC or the Australian aquaculture industry.

REFERENCES

1. Commonwealth of Australia, 1999, AQUAPLAN - Australia's National Strategic Plan for Aquatic animal health 1998-2003.
2. Econsearch and Hassells, 2002, AQUAPLAN: Resources and Funding Consultancy. Executive Summary and Working Papers, Prepared for FRDC, January.
3. Dominion Consulting, 2003, Funding and Compensation For Compulsory Destruction of Aquatic Animal Stock and Crop Loss Coverage: A Report to Australian Fisheries, Forestry and Agriculture, AFFA, July. In: *Aquatic Animal Health Subprogram: Development of strategies for improved stock loss insurance and for development of a cost-sharing arrangement for emergency disease management in aquaculture*, Final Report of FRDC Project 2003/600, Fisheries Research and Development Corporation, Canberra, Australia.
4. Dominion Consulting, 2004, The development of a cost-sharing agreement and its application to the salmon industry: a pilot study: A report to Australian Fisheries, Forestry and Agriculture (AFFA) May. In: *Aquatic Animal Health Subprogram: Development of strategies for improved stock loss insurance and for development of a cost-sharing arrangement for emergency disease management in aquaculture*, Final Report of FRDC Project 2003/600, Fisheries Research and Development Corporation, Canberra, Australia.
5. AUMS, 2003, The Global Historical Perspective on Aquacultural Insurance, Aquaculture Underwriting and Management Services, Presented at the National Risk Management for Aquaculture Workshop, Louisville, Kentucky, February 19.
6. Guildford, Graham, 1998, Most Aquaculturists Aren't Insured!: MLH Insurance Brokers, *Austasia Aquaculture*, August, 1998.
7. Piron, Peter, 1993, An Introduction to Aquaculture Insurance. *Austasia Aquaculture*, October, 1993.
8. Barnett, Barry, 2002, Risk and Insurance Principles. Proceedings of the first National Risk Management for Aquaculture Workshop, held April 2-3, 2002, at the Holiday Inn Select - Airport, in Memphis, Tennessee.
9. Coble, Keith and Saleem Shaik, 2003, Agriculture Insurance Designs, Concepts, and Examples. Presented at the National Risk Management for Aquaculture Workshop, Louisville, Kentucky, February 19.
10. ARM, 2003, Compulsory Destruction Insurance. Comments via email from Aquaculture Risk Management Ltd, Sunderland Marine Mutual Insurance, April. Contacts: Andrew Johnston, Martin Coull, Tom Rutter of SMMI.
11. ABARE, 1996, Impact of Salmonid Disease Introduction into Australia: A Socio-Economic Statement as Part of the Import Regulatory Assessment Process. Report to Office of the Chief Veterinary Officer Department of Primary Industries and Energy, April.