



Inquiry into the Biosecurity Bill 2012 and the Inspector-General of Biosecurity Bill 2012.

Introduction

There have been three comprehensive enquiries into Quarantine and Biosecurity in Australia in recent years. The first was the 1996 Nairn Report by Professor Mal Nairn from Western Australia. This was followed by the Cullinan report into the outbreak of Equine Influenza in Australia in 2007 which morphed into the Beale independent review of Australian Quarantine and Biosecurity arrangements report to the Australian Government 2008 entitled “One Biosecurity a working partnership”. These three investigations and reports have similar recommendations and problems with implementation of their recommendations. All reports agreed that government is doing a good job in pre arrival and arrival border protection. Any disease incidents and exotic incursions are escaping after the borders have been breached and the incidents are not being monitored within the Australian borders.

In summary all these reports agree that zero risk is unattainable and any exotic species or disease incursion needs to be managed rather than eliminated. The question then arises as to who is going to manage that risk and observe the incursion and to what extent Australia suffers the effects of these predations.

It is a fact that most members of the general public are not trained to monitor disease or capable of recognising an exotic plant if observed. They are also untrained in understanding the effect of the introduction of an exotic plant or fish into waterways and how they can devastate native species. Therefore it is incumbent to employ knowledgeable professionals in the field to monitor existing conditions and report outbreaks and infestations. It is in the strategic use of knowledgeable individuals where government money is best deployed. The editorial of the Weekend Australian of 15th December makes exactly the same point only better expressed.

Nature of Biosecurity

Below is a summary of what is involved in Biosecurity. It was prepared for the outbreak of Equine Influenza so has a slight bias towards horses although the principals remain the same whether the incursion is plant, animal or disease.

Introduction

- ◆ Owners bear the ultimate responsibility for biosecurity and should prepare own rules
- ◆ “Clean on, clean off” principals should apply
- ◆ Identify what diseases are potential problems
- ◆ Implement management practices to control or minimise risks
- ◆ Control movement of staff and animals
- ◆ Zone your property to control spread of disease

Principals of Biosecurity

- ◆ Ability to trace movements of stock, personnel, gear, supplies and vehicles
- ◆ Employ a zoned approach to your property
- ◆ Maintain separation of horses from external boundaries
- ◆ Maintain separation internally.

Horses

- ◆ Isolation of new arrivals
- ◆ 20 metres from neighbouring properties
- ◆ Immediate Veterinary advice
- ◆ Handle feed and water sick horses last

- ◆ Record movements
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People

- ◆ Where have they been?
- ◆ What do they need to do while here?
- ◆ Who is coming onto property?
- ◆ How can I manage the risk they cause to my animals?
- ◆ What are those risks?
- ◆ Are risks quantifiable?

Equipment and Facilities

- ◆ Separation of Tack
- ◆ Clean stables
- ◆ Disinfection of medical equipment and facilities
- ◆ Use fresh syringes and needles for each horse and injection given

Vehicles

- ◆ Only allow farm vehicles onto property
- ◆ Off farm vehicles prohibited from paddock or stables areas
- ◆ Have limited access points to different zones on property

“Clean On, Clean Off”

- ◆ Wash hands thoroughly before and after handling individual horses
- ◆ Only use harness, halters or saddles you know belong to that animal
- ◆ Protect outer garments being worn by visitors
- ◆ Use of footbaths
- ◆ Parasite controls

Disease Management

- ◆ What is disease?
- ◆ How is it transmitted?
- ◆ Management should always be cost effective

Patient Management

- ◆ Fresh water for each individual horse

- ◆ What differences in management for different causes?
- ◆ Cost/Benefit analysis

Disease

- ◆ A state of less than optimal health
- ◆ Can range from off colour to death
- ◆ Is manifested by clinical signs or symptoms
- ◆ Diagnosis is made by informed knowledge
- ◆ These can sometimes be wrong
- ◆ Treatments can range from “benign neglect” to intensive care.

Causes of Disease

- ◆ Traditionally grouped into endogenous or exogenous
- ◆ Endogenous are: - nutritional or feeding problems,
 - Hormonal or brain function disorders,
 - Endocrinal or gland disorders,
 - Embryological or developmental abnormalities

Causes of Diseases (cont)

- ◆ Exogenous are from outside the body agents:-
- ◆ Viruses
- ◆ Bacteria
- ◆ Protozoa or unicellular organisms
- ◆ Parasites
- ◆ Insects
- ◆ Venoms or toxins

Management of Disease

- ◆ Prevention is cheaper than treatment
- ◆ Treatment can't commence until right diagnosis made.
- ◆ Management should cover patient, facility and environment
- ◆ Better management attracts more clients
- ◆ Proper diet fed to healthy mouth
- ◆ Keep urine and faecal matter away from feed and watering areas
- ◆ Minimise contact between horses (20m)

- ◆ Don't allow horses to share feed and water buckets

- ◆ Manage waste feed

Facility management

- ◆ Begins with proper design – not covered here

- ◆ Minimise access of people and vehicles

- ◆ Keep up to date with all paperwork – horse identity, health history, genetics

- ◆ Manage equipment and tack

- ◆ Breeding areas need special attention

- ◆ Treat them like a hospital

Management Planning

- ◆ What is threat?

- ◆ What do we need to do?

- ◆ What do we need to do it?

- ◆ Who is responsible to do it?

- ◆ How do we do it?

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Environment Management

- ◆ Fencing

- ◆ Pastures

- ◆ Shelters

- ◆ Stables

- ◆ Boundaries

- ◆ Roadways and walkways

References:

Hamilton B Biosecurity Seminars WA 2008

Hungerford TGH Diseases of Livestock

Geering et al. Exotic Diseases of Animals 1995

Internet –<http://www.horseslandwater.com>

http://www.daff.gov.au/_data/assets/pdf_file/0009/567783/general-biosecurity.pdf

The above summary demonstrates the great difference between existing property owners knowledge and what is required if they are to become serious about keeping disease at bay and off individual properties. Thus any legislation should include funding to educate those on the land to know when to call for help.

Historical Stories

The Australian Government has, over the past twenty years or more changed the available resources available for training and employment of experts in the field of Agriculture and Veterinary Science. This has not prevented several universities opening their own veterinary schools despite many surveys that advise against this strategy. This means that, although governments are not employing that expertise, there is plenty of expertise available should the decision be made to action the recommendations detailed in the reports referred to earlier.

The entrance scores required for entry to these veterinary schools has exceeded that of all other professions including medicine and law. The consequence of this is that, over more than a decade, the crème de la crème of Australian intellectual talent has been drawn to the veterinary profession to its great benefit. The Australian Government has not recognised the opportunity presented to utilise this fantastic talent pool as employment of veterinarians in senior roles in the bureaucracy has decreased in recent years and those who are present have decreasing influence in the decision making process. This has meant that the training which they receive (which incidentally is the most expensive of all university courses) is being squandered by the Australian government and the highly intelligent, and most comprehensively trained people in problem solving skills, are being wasted in lowly paid, small animal veterinary practices around the country. This results in high turnover of staff as they are unfulfilled in their present roles. Many turn to research for intellectual stimulation but if given the opportunity could be better employed sorting out Australia's Biosecurity issues which are going to require great intellectual input and political will to solve. It also means that in years to come veterinarians in senior positions will have greater intellectual capacity than judges!

At the same time the great Australian agricultural schools have been starved of funds and have been suffering progressive closure through a lack of student applications. (Muresk, Gatton, Hawkesbury, etc. all closing). These closures happen because society is not promoting the benefits of the agricultural professions and opportunities for employment of graduating agricultural specialists. This has decreased the agricultural scientists available for employment in the field to monitor any plant disease outbreaks or infestations of exotic plants and diseases.

It is difficult to find solutions that will curb the attrition and build infrastructure that encourages agricultural sciences and improves the biosecurity of the nation.

The Beale report spells out the political problems of implementation and defines the responsibilities of the tiers of Government. Everyone agrees that biosecurity is a worthwhile goal but no one tier of Government has supplied sufficient funds to implement a workable solution despite many attempts.

This then becomes an exercise in risk management. What are the costs of not implementing the recommendations compared to the cost of implementation? The recent Equine Influenza outbreak is a classic case study which demonstrates how much a single relatively minor exotic disease can cost a nation if eradication is set as the goal. The recent implementation of the funding of AUSVETPLAN for horses is the industries response as to the importance of exotic diseases plays in their industries. The farmers organisations, beef and dairy producers, pork and bacon producers and many other animal based industries are all stakeholders in AUSVETPLAN and are prepared to place their money where it will do the most good. It is incumbent on the various tiers of Government to fulfil their part of the bargain and support biosecurity where their role is the most efficient.

The problem for Australia is that while there are relatively few entry points for exotic disease, once a disease escapes into the vast outback, it is especially difficult to eradicate. The recent outbreak of Ovine Johnes disease is an example of what happens when too few resources are used to tackle a problem too late to be effective. Thousands of Australian farmers have had their years of genetic development destroyed through poor government policy developed because insufficient resources were used to develop the policy. This has set back the wool industry decades and cost farmers (and therefore Australia through lost taxation) billions of dollars.

Over the past thirty years the effect of resources spent on monitoring for disease and infestation on private property has changed. The generation of veterinarians post WWII and up to the 1970s were responsible for the eradication of pleuro pneumonia, brucellosis and tuberculosis in the cattle industry. Ovine brucellosis was controlled and ovine johnes disease, footrot and scabby mouth were at low incidence. Anthrax was confined to a small geographic region around Texas in NSW. Since the 1970s the presence of veterinarians earning the majority of their income from production animals in country regions has decreased despite an increase in the number of veterinary practices. The vets are not going onto farms as much as previously but are attending to the dogs and cats owned by the farmers. Fire brigade practice is no longer a viable option for delivery of veterinary services to farmers. A survey by the Dr John Maxwell in Western Australia in 2008¹ reported that 95% of farmers would not have a vet on their property if they did not require them for the provision of restricted drugs. Only three veterinarians were making all their income from production animal practice in Western Australia. All other rural practitioners had to augment their practice income from small animal practice.

This history of recent large animal veterinary practice is directly the result of decreasing government involvement in biosecurity and disease management in the commercial animal industries. I am not qualified to pass an opinion on the situation in the plant industries but given the statistics sited in the various quarantine and biosecurity reports I guess their situation is as parlous as the animal industries, especially as agriculture is not gaining the support from academe that is enjoyed by veterinarians.

Since the 1970s the veterinary profession has watched over the introduction of fowl plague, Newcastle disease, equine influenza and the spread of footrot, anthrax, johnes disease in sheep and

¹ Maxwell et al Rural Vet Services in WA AVJ Vol 86 p 7-11 2008

other diseases of bees, the introduction of European wasp, fire ants, etc., etc. Animal diseases, exotic animal arrivals and plant encroachments are being discovered too late to eradicate. In the 1970s an outbreak of ovine brucellosis in Tasmania was stopped in its tracks by the swift action of three personnel, a vet, a stock agent and a farmer. The total cost of eradication was less than \$10,000. This result was achieved through the active linking of the farming community with the veterinary profession. The 2008 Maxwell report out of WA indicates that this linkage is now broken.

Conversations with staff at the frontline of Border Protection and Customs reveal a very low morale with poor resourcing for those at the coal face. Any legislation to improve Border Protection should limit administration costs to 10% of the budget so that the majority of funding is delivered to those actually doing the work. This may require a complete rethink of the way government operates but will be essential if success is to be achieved.

Role of Government

The first principals of government state that they should control internal strife protect from external threat, look after those who cannot look after themselves, and perform tasks beyond the capability of private enterprise. As first principals these have not altered since government of civilizations began. Thus, as an external threat, biosecurity should be raised as a priority for consideration by government. It is not just humans that can devastate a country. In this day and age enemies are just as likely to be using biological weapons to achieve their aims. Without educated personnel in the field monitoring the environment the enemy's aim will be achieved. Australia has a vast underutilised resource in the veterinary profession comprising the brightest minds the nation has produced for the past decade. It is incumbent on all levels of government to stop procrastinating, do the necessary negotiating between levels of government and legislate to produce achievable outcomes.

While government has been moving away from its links with commercial farming and agriculture there has been a swelling of support for not-for profit organisations involved in disease and biosecurity like the AWHN (Australian Wildlife Health Network) who links with AMRICC (Animal Management in Rural and Remote Indigenous Communities), ARWH (Australian Registry of Wildlife Health), and other data gathering organisations. This is a great step if the knowledge gained is used to achieve some positive outcomes through the systematic management and control of exotic incursions.

This may be a great opportunity to expand on the partnerships with private enterprise and utilise the great wealth of veterinary experience present in regional areas. The private practitioners are not visiting all farms in their regions. If government was able to fund the travelling and visiting costs then personal relationships between veterinarians and all farmers would improve if no cost was borne by the farmer. It succeeded for years in Tasmania where exotic disease outbreaks were few and when occurring were eliminated at minimal cost.

Perhaps it is time for the entire relationship between farmers and the professionals who serve them is reconsidered. Certainly the changes effected since late last century, while increasing knowledge, is achieving less than ideal outcomes. Public debate and education will be keys to achieving better outcomes together with the three tiers of government working together with private enterprise to more fully utilise the expertise already present in the field.

Proposed model for Director of Biosecurity

I believe the staff and administration at Australia's borders are doing a magnificent job under trying circumstances where so much financial belt tightening is happening during this time of global financial crisis. However I believe the administration by DAFFs across the country in monitoring disease in both animals and plants post border is not achieving stated goals. Therefore I would recommend that teams of veterinarians and agricultural scientists be distributed in local government areas for the purpose of evaluating exactly what problems are occurring and providing advice on how

they can be managed. These teams can involve private businesses where possible so the expertise available is better utilised in the productive animal and plant sectors.

This submission has been prepared in haste between other commitments as I was only asked to make a submission on 3rd December 2012. I would be happy to address specific concerns the Inquiry may have at a later date if requested.

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