

2.3

Biosecurity

Stuart Barber

srbarber@unimelb.edu.au



VETS30030 / VETS90123



International down to property biosecurity

- Range of levels where biosecurity is applied
 - International
 - National
 - State
 - Regional
 - Local
 - Property
- Animal Health Australia (AHA) coordinates veterinary biosecurity in Australia



AHA

- “Biosecurity is everyone’s business and it’s important that everyone plays their part. Australia has several layers of biosecurity systems that protect our livestock sectors including pre-border biosecurity that prevent things from coming into the country as well as systems that manage risks coming into the state. After these, our greatest line of defence are livestock owners. Livestock owners know their livestock and are more likely to notice a problem before anyone else will. You are our greatest biosecurity defence when it comes to surveillance and reducing the impact of a serious animal disease by ensuring suspected animal diseases are reported quickly so disease can be contained and eradicated. Playing your part in biosecurity involves ensuring you are adequately protected from potential biosecurity risks such as pests, disease and weeds. The first step towards this is implementing a biosecurity plan that specifically addresses the unique risks that your business faces.” <https://www.animalhealthaustralia.com.au/what-we-do/biosecurity-services/>



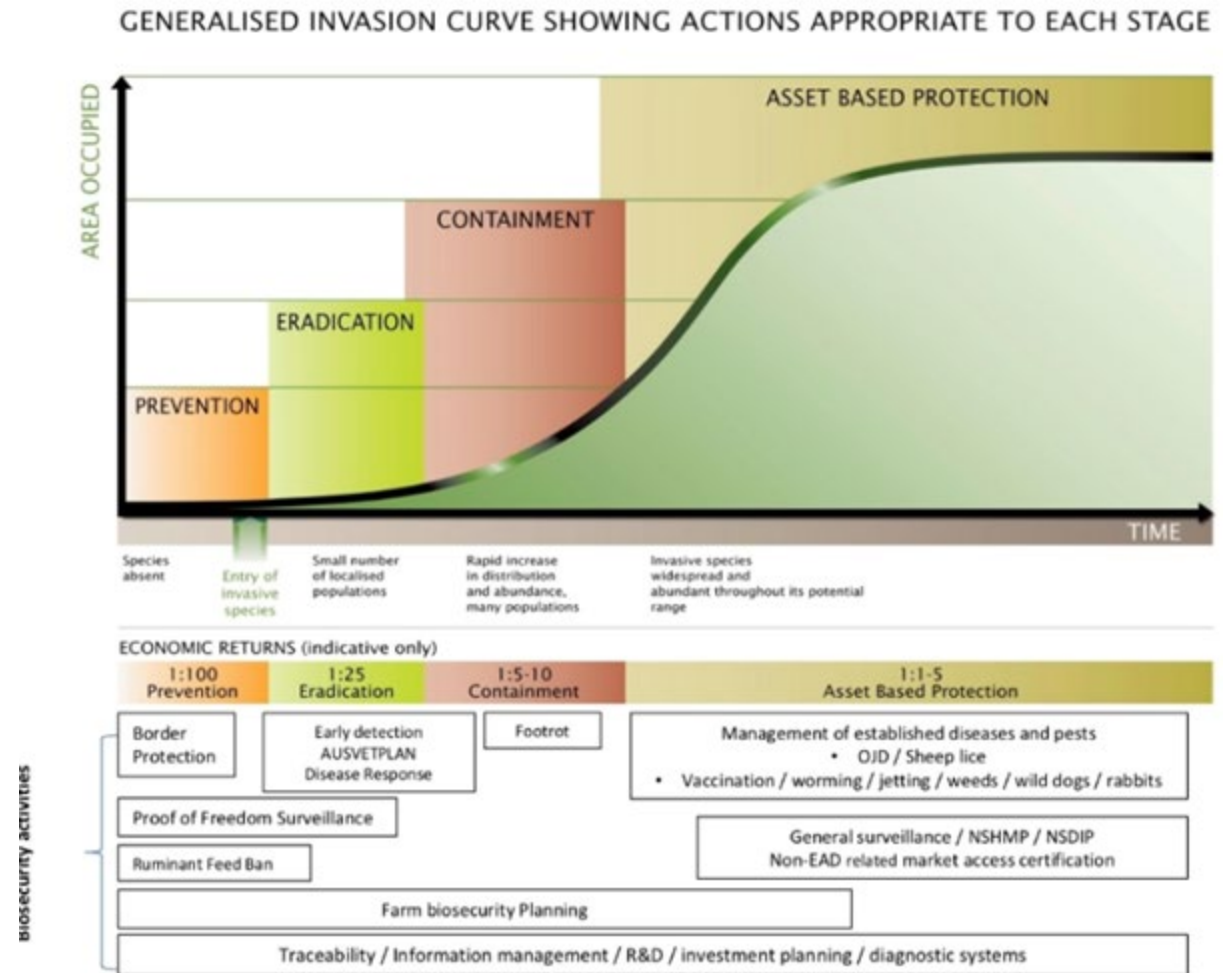
Biosecurity

- Commonwealth oversight of biosecurity = AHA
- State level oversight = Department of Primary Industry (note that DPI has a history of regularly changing its name)
- Regional/local level oversight often by veterinarians employed by DPI = regional defence against exotic disease incursion
- Early identification of exotic disease would save a huge amount of \$ and improve prospect of eradication



Benefit of biosecurity

- Cheaper cost to avoid organism coming into country than going through eradication



Exotic versus endemic

- Exotic diseases are those that are not present in a country, for Australia this includes diseases such as Foot and Mouth Disease
- Endemic disease is a disease that is already present in a country. E.g. for Australia this includes disease such as *Mycobacterium paratuberculosis* (Johne's disease)
- A number of exotic diseases have highly significant trade implications ie. Would stop exports to many countries immediately
- Australia is a country where the majority of many products is exported



Foot and Mouth Disease (FMD)

- A review of what it was like to be involved in FMD eradication in UK
<https://www.bva.co.uk/news-and-blog/blog-article/foot-and-mouth-disease-time-for-sombre-reflection/>
- Producers and veterinarians must be aware of the early signs of FMD
- If arrived here then even a small outbreak likely to cost 7 billion dollars and this would double if a larger outbreak
- Not feeding swill
- Not bringing in meat products



Bovine spongiform encephalopathy (BSE) – Mad cow disease

- Huge impact on countries where has been identified
- Australia has ongoing TSE monitoring program
- USA lost \$11billion in exports due to cases in the 2000s



Multi resistant parasites

- Many farms have parasites resistant to most of the available chemicals to control parasites
- Requires both chemical and non-chemical control options to extend life of current chemical options (integrated parasite management)
- Need effective biosecurity to avoid purchasing stock with resistant parasites to spread to other sheep on farm



Practical biosecurity

- Footwear for on-farm, separate foot ware off-farm, or a protocol for washing/cleaning
- Machinery (including cars) onto farm, washdown/clean to avoid weeds etc
- Livestock import protocol – assessment off-farm, testing, assessment on-farm, treatment, quarantine, reassessment
- Regional biosecurity



Biosecurity for the veterinarian

- Veterinarians (and veterinary students) can be a significant biosecurity risk as they go between enterprises
- Consider biosecurity whenever visiting enterprises, particularly EMS
- Vets work across a range of biosecurity areas – direct farm visits, local DPI, regional, state or commonwealth veterinary roles or OIE (WOAH) in research/extension

