WHERE DO DISEASE CONTROL RECOMMENDATIONS NEED TO GO TO SUPPORT AQUATIC ANIMAL HEALTH

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CHAPTER 11.1.

INFECTION WITH ABALONE HERPESVIRUS

Abalone viral ganglioneuritis (AVG)

Article 11.1.1.

For the purposes of the Aquatic Code, infection with abalone herpesvirus (AbHV) means infection with the herpesvirus known to cause disease in abalone.

Information on methods for diagnosis is provided in the Aquatic Manual.
**Victoria** – disease emerged in 2005
First in farms; then in wild populations.

**Tasmania** – 2008 in live holding facilities; very low prevalence in wild; then in a farm.
Challenges

• Biosecurity advice where knowledge on epidemiology and inactivation is limited

• Developing consistent approaches to biosecurity across very different sectors – e.g. fisheries and aquaculture

• Communicating biosecurity measures and gaining acceptance

• Developing methods for monitoring biosecurity processes

• Cost-effective approaches to demonstrating of disease freedom.
Overview

• Categorisation of different production types for biosecurity purposes

• Categorisation of different biosecurity measures

• Outcome-based measures for biosecurity performance

• Cost-effective approaches for demonstrating disease freedom.
This presentation

• Categorisation of different production types for biosecurity purposes

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• Cost-effective approaches for demonstrating disease freedom.
Semi-open systems
Semi-closed systems
Closed systems
Overview

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Entry level biosecurity
Internal biosecurity
Exit level biosecurity
Live-holding facilities  Both  Farms
New biosecurity measures:

**Farms and fisheries**
- Ten biosecurity regions and movement restrictions established
- Well-boat movements were restricted around the coastline
- Internal biosecurity measures, involving routine hygiene and surveillance measures.

**Farms**
- Strict *entry-level* biosecurity was applied to farms (health certification)

**Fisheries**
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Indicator systems for exit-level biosecurity

How do we test that disinfection measures are effective?

Can we use indicator species?
Disinfection of discharge water

• Most appropriate decontamination method might vary according to the type and size of the operation
• Outcome measures were legislated (i.e. disinfection efficacy) rather than input (i.e. disinfection method)
• Offers flexibility for producers; new technology is not excluded; is auditable; is relevant.
Disinfection of discharge water (2)

- There are few validated processes for demonstrating pathogen inactivation using indicator species
- Marine heterotroph bacteria used as indicators (Baulch et al, 2013)
- Requirements for other aquaculture industries being explored.
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Use of sentinels

- Sentinels have been proposed for the demonstration of AVG-freedom as part of a national health accreditation program.
- The Aquatic Code defines sentinel units as “the identification and regular testing of one or more animals of known health/exposure status in a specified geographical location to detect the occurrence of disease.”
- Offers significant cost savings (if sufficiently sensitive to demonstrate freedom).
But…

• Under what conditions is there use appropriate?
• Are there agreed criteria on their use?
• Should an approach be described?
Use of Sentinel Units

Role in demonstrating freedom in previously infected premises
Conclusions

Where do disease control recommendations need to go?

Classification of biosecurity measures

Classification of production system types

Outcome-based measures for biosecurity

Alternative approaches for demonstrating freedom - sentinels
References


Thank you for your attention