

A close-up, high-magnification photograph of wool fibers, showing their natural crimp and texture. The fibers are light-colored and appear soft and fibrous. The background is blurred, focusing attention on the individual strands of wool.

Wool Biosecurity:

Australian case study on outbreak preparedness and risk assessment

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Incursion response and management

Biosecurity is an Australian Government priority

Clearly defined emergency disease response programs, and governance arrangements

E.g. Australian Wool Industry Emergency Animal Disease Response Plan (WoolProducers Australia)

To be 'worlds-best' implies constant refinement



Trade continuity?

Prevention & eradication are the primary challenge

Yet trade continuity is also a major challenge

Australia supplies:

- 24% of all wool
- 63% of apparel wool
- 90% of fine apparel wool

Consequences of trade shut-down for 4 months?



Trade Continuity RD&E

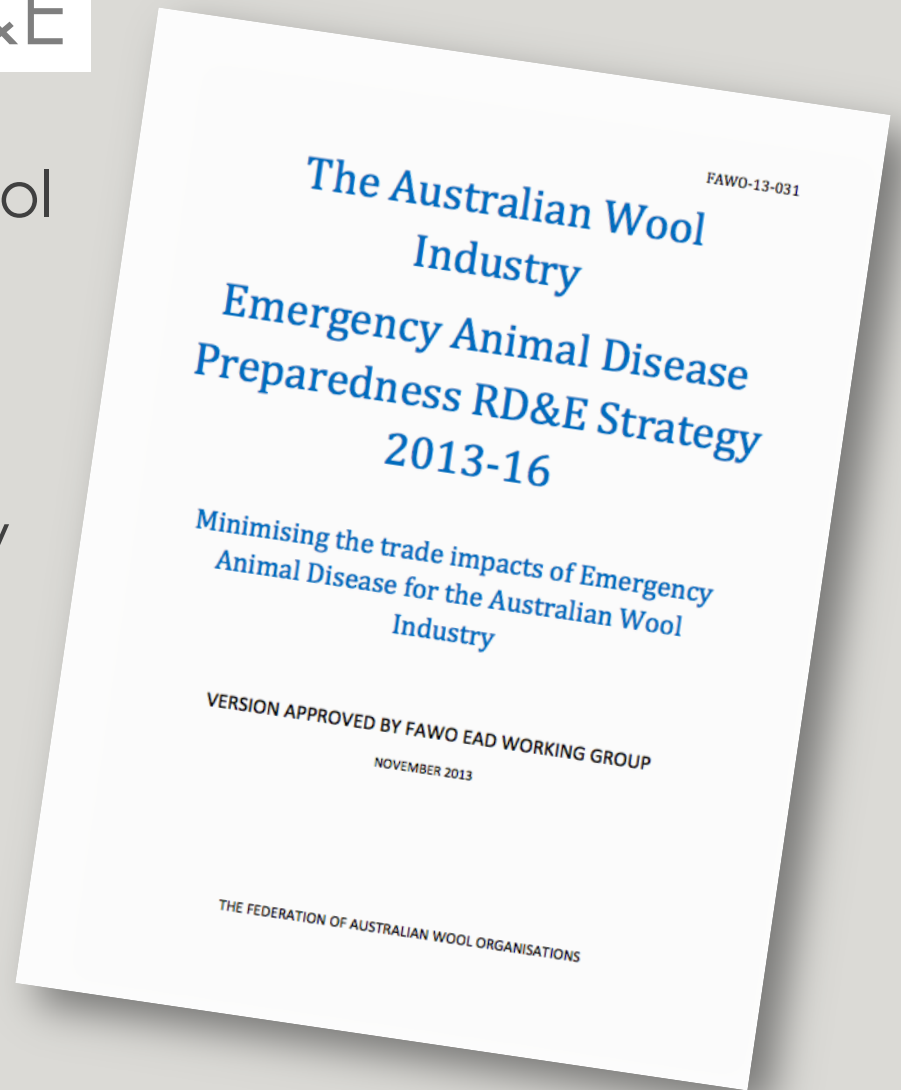
Federation of Australian Wool Organisations (FAWO) led

Intent to:

- maximise trade continuity
- support where possible rapid & effective disease response efforts

Review conducted in 2011

Identified key RD&E targets



Logistical system poses challenges

The logistical unit is the bale
Eradication occurs at the farm
Consequences post-border



Source: museumvictoria.com.au



Source: pack-tainers.com



Source: shanghaimetalcorporation.wordpress.com

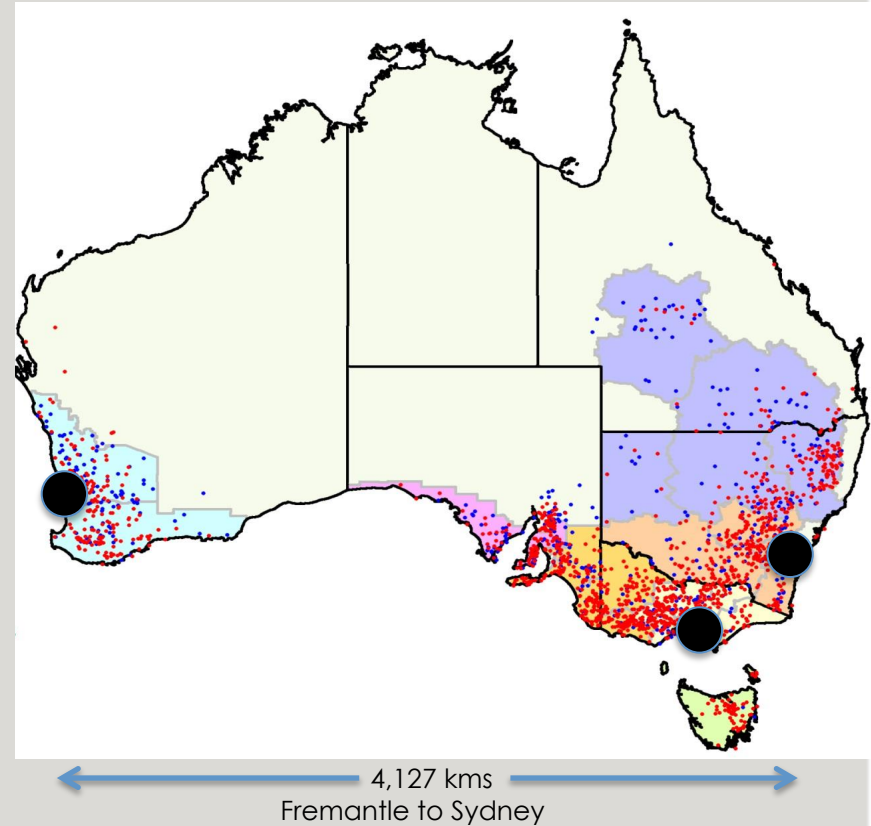
Dealing with millions of bales, and kms

1.9 m individual bales filled each year

6 states x 3 selling centres x large distances

Key targets:

1. Traceability - rapidly localise to farm of origin
2. Bale disinfection & decontamination



Bale Decontamination

Wool bale itself needs to be decontaminated

High throughput process being developed (AWTA)

Suited to wool logistical centres

Subject of on-going trialing.

International evaluation?



Images source:
AWTA Limited (2014)



Dis-infection

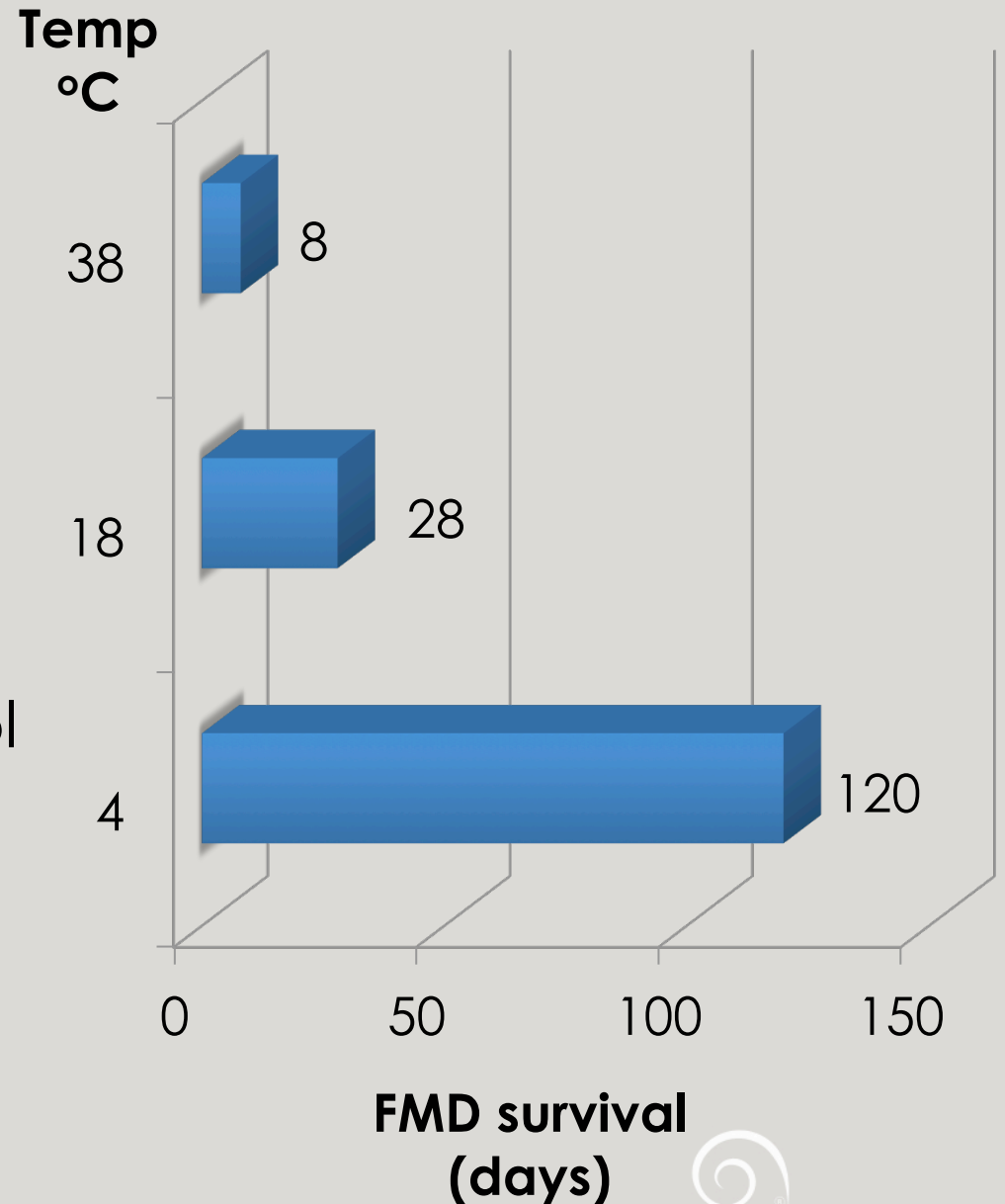
Limited data on FMD virus survival.

Highly dependent on time & temperature

These 3 points underpin OIE procedures for wool bale storage, post FMD

Absent of verifiability, default to 4 months?

Trade-flow impacts?



Source: OIE Terrestrial Animal Health Code, Article 8.5.35

Dis-infection – alternate approaches

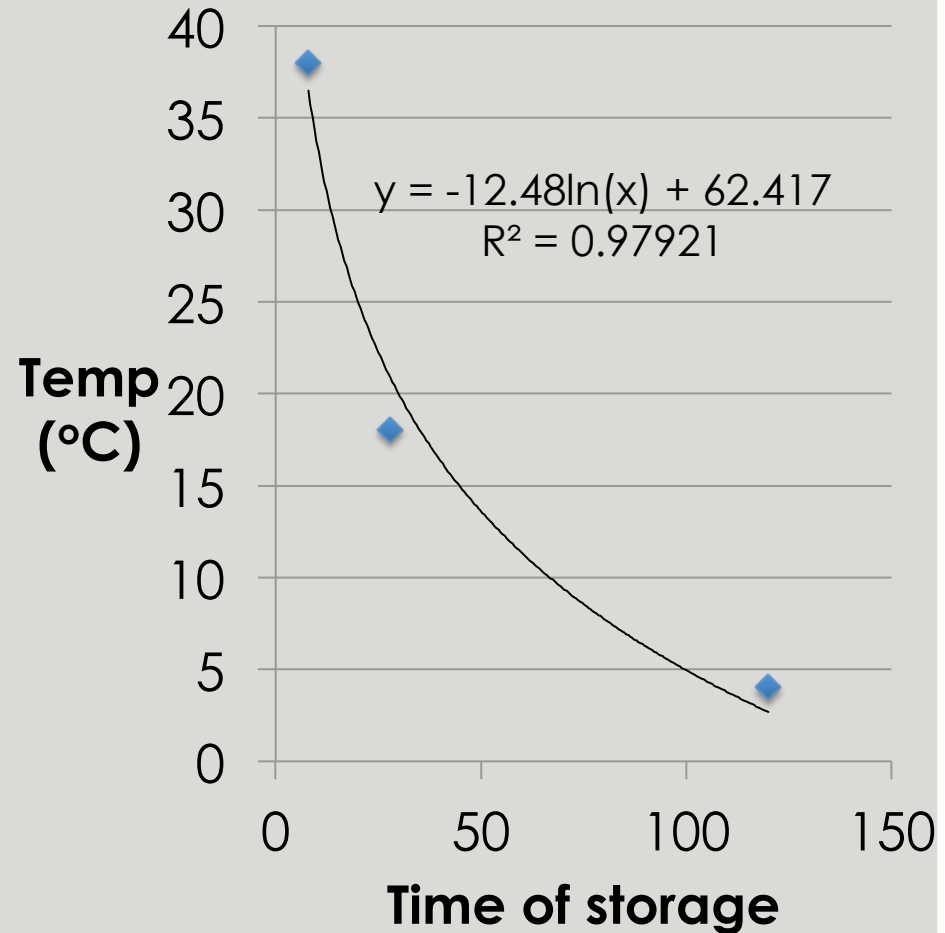
Rapid:

- Heat bales with μ -waves
 - Irradiate with γ -rays
- Cost and efficiency?

Ambient conditions:

Systems for monitoring
time:temp accumulation?

500 °C.days required?



Smart solutions?

Bluetooth-based bale 'tag'

Bale ID, time, temperature

Survives dumping

May enable:

- Logistical cost savings
- Verification of time:temp
- Traceability to geo-location of bale origin



Image source: AWI (2014)

International cooperation

International wool trade biosecurity working group process established, through IWTO (Brussels)

Its purpose:

- share
- coordinate
- engage key stakeholders such as OIE



IWTO Multi Stakeholder Meeting, Brussels, 1/12/14 – Frank Berthe (OIE) chairing the Biosecurity Session



Thank you

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