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TB Update and TB Risk

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Where are we with bovine TB?

What are the risk factors?

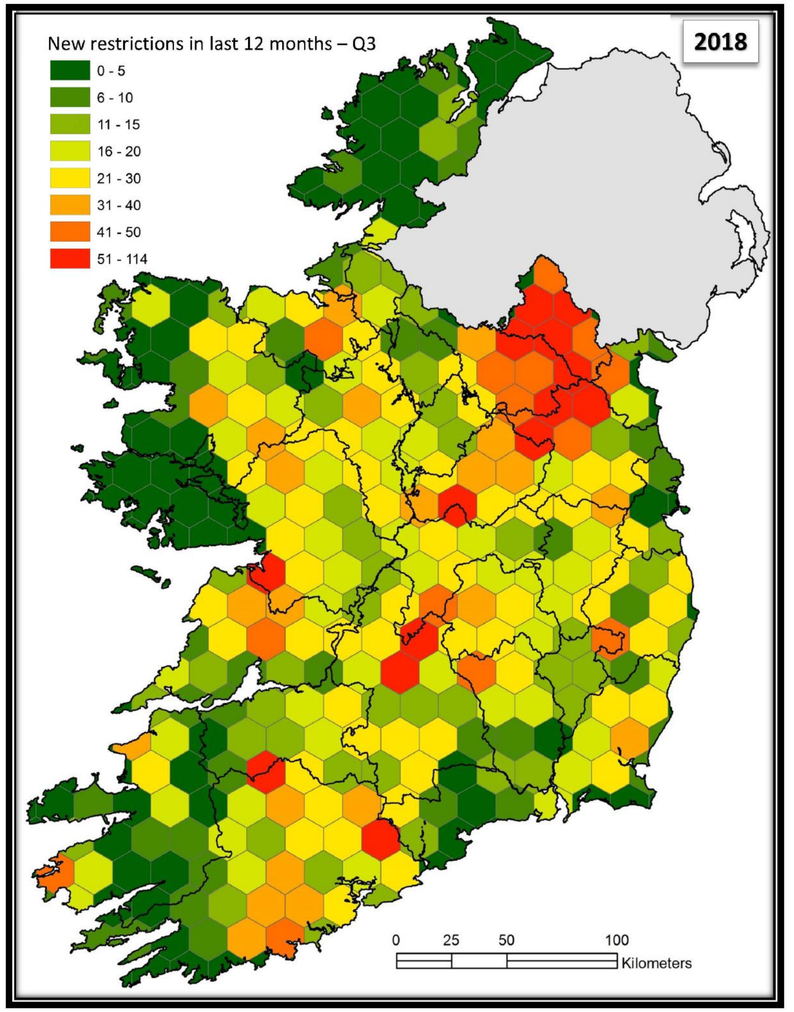
What can you do to reduce the risk?

Where are we with bovine TB?

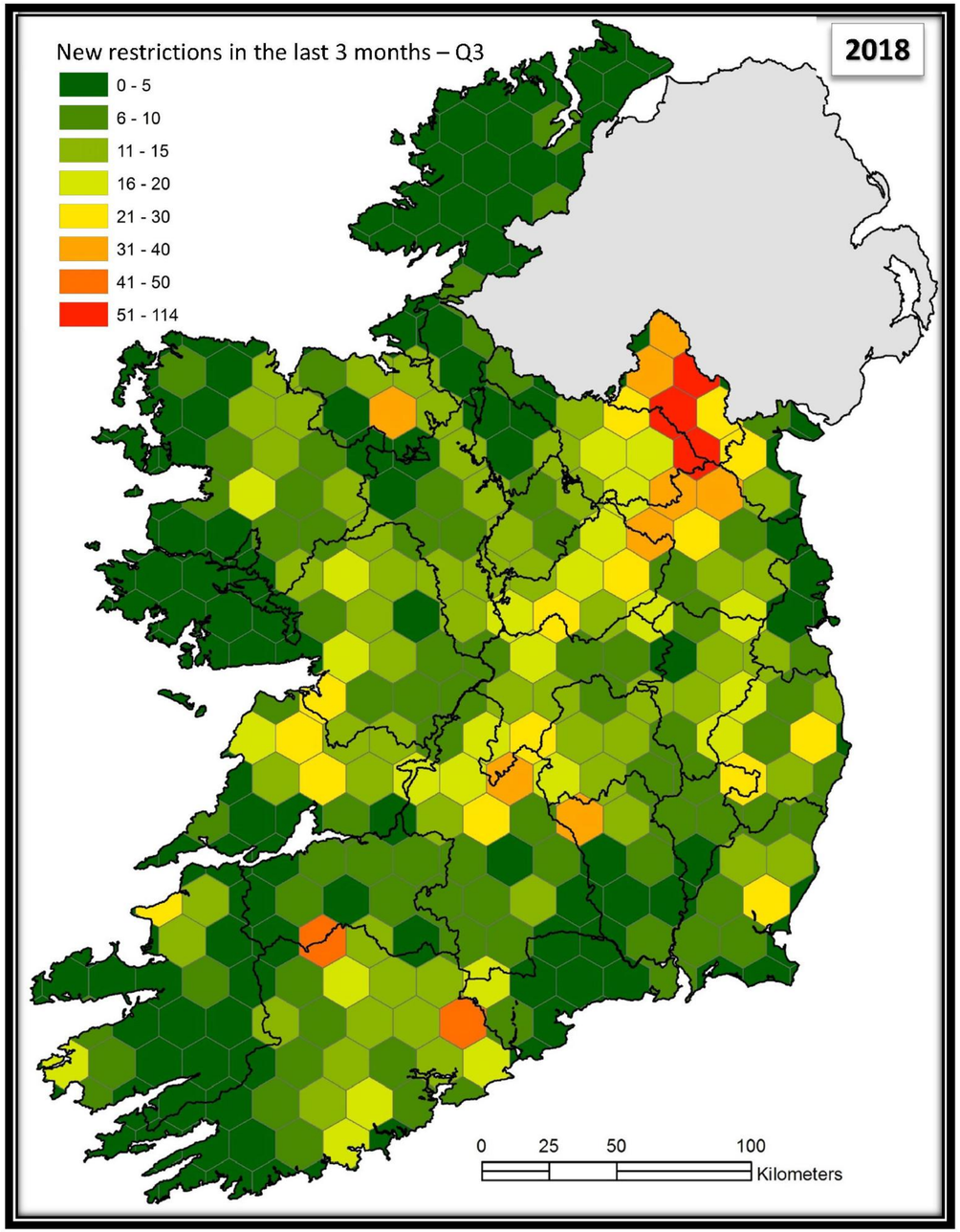
Our programme is good… but is it good enough?

Do we need to do more?

2018
3.49% herd incidence,
17,360 reactors,
1.97 APT

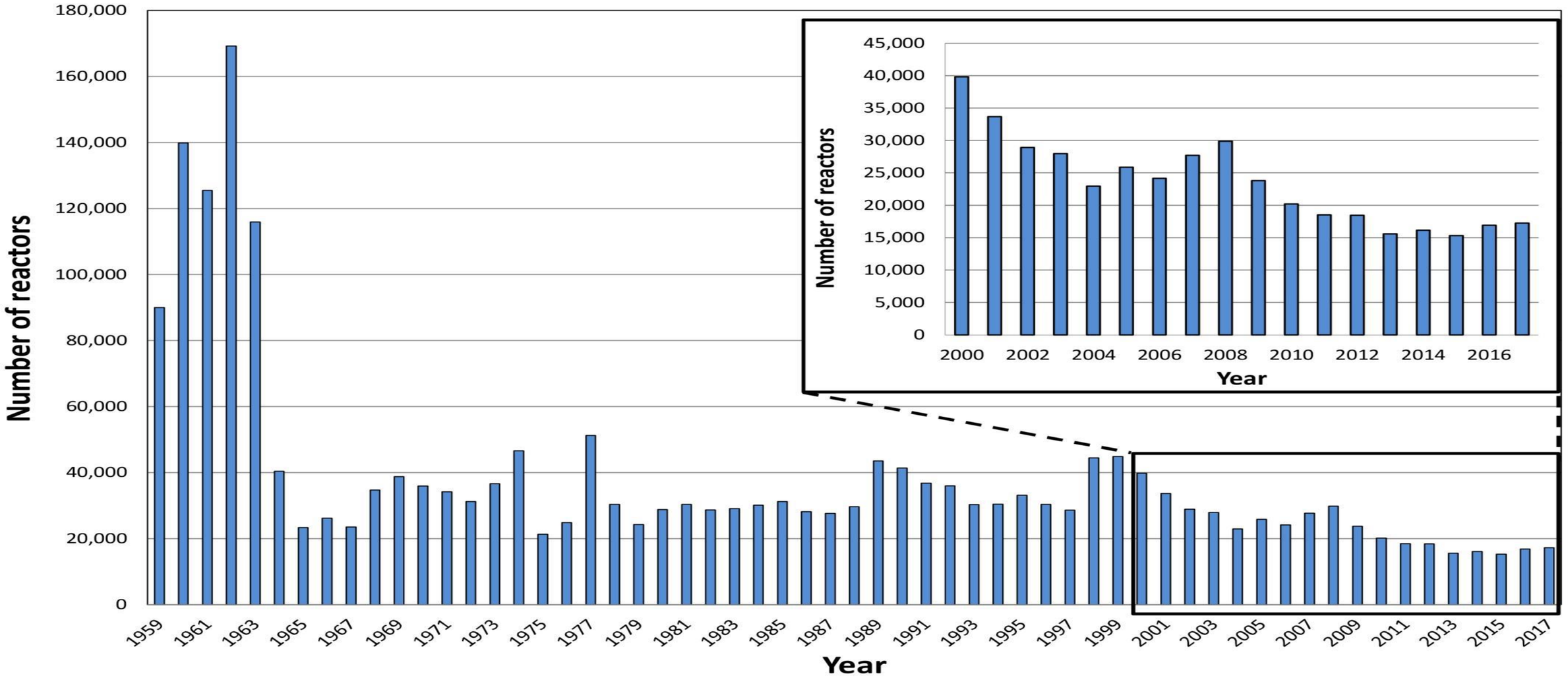


Count of breakdowns in 12 months up to 01/10/18

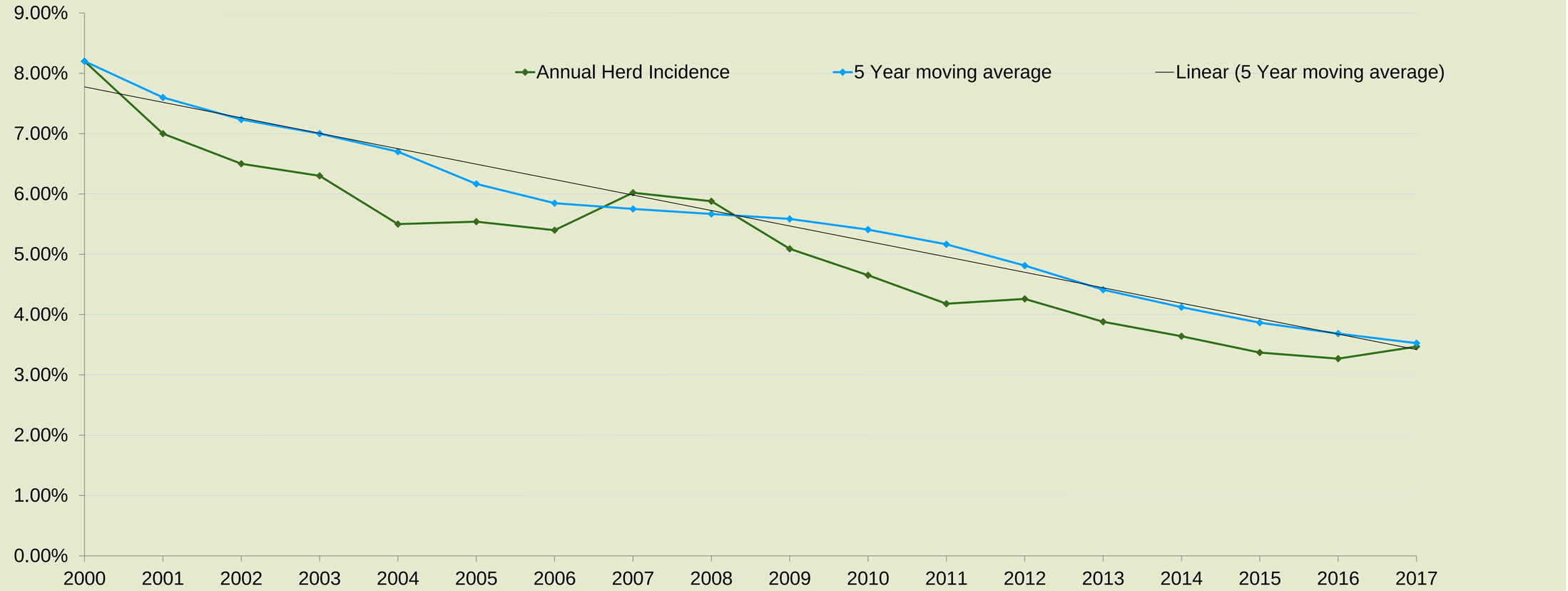


New breakdowns in the last three months

The number of reactors per year has decreased very significantly – but is now stabilising



Herd Incidence

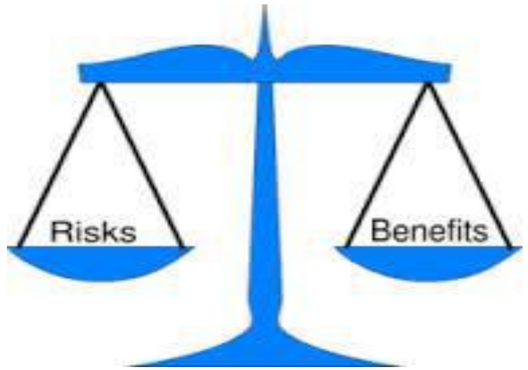


Where are we with bovine TB?

What are the risk factors?

What can you do to reduce the risk?

Explosion risk



What does the research say about risk?

Cattle which have been in more herds – higher risk for factory lesions (NI research: OR for lesions 2.42)

Byrne et al 2017

7.4% of restrictions are attributable to the recent introduction of an infected animal; in Northern Ireland, figure is 6.4%

Clegg et al, 2015 and Doyle et al, 2017

Risk factors for factory lesion animals with no spread in herd of origin: previous exposure to TB (162 days OR 1.52); being an inconclusive (OR 2.16); number of herd movements (>3: OR 1.76)

Clegg et al 2016

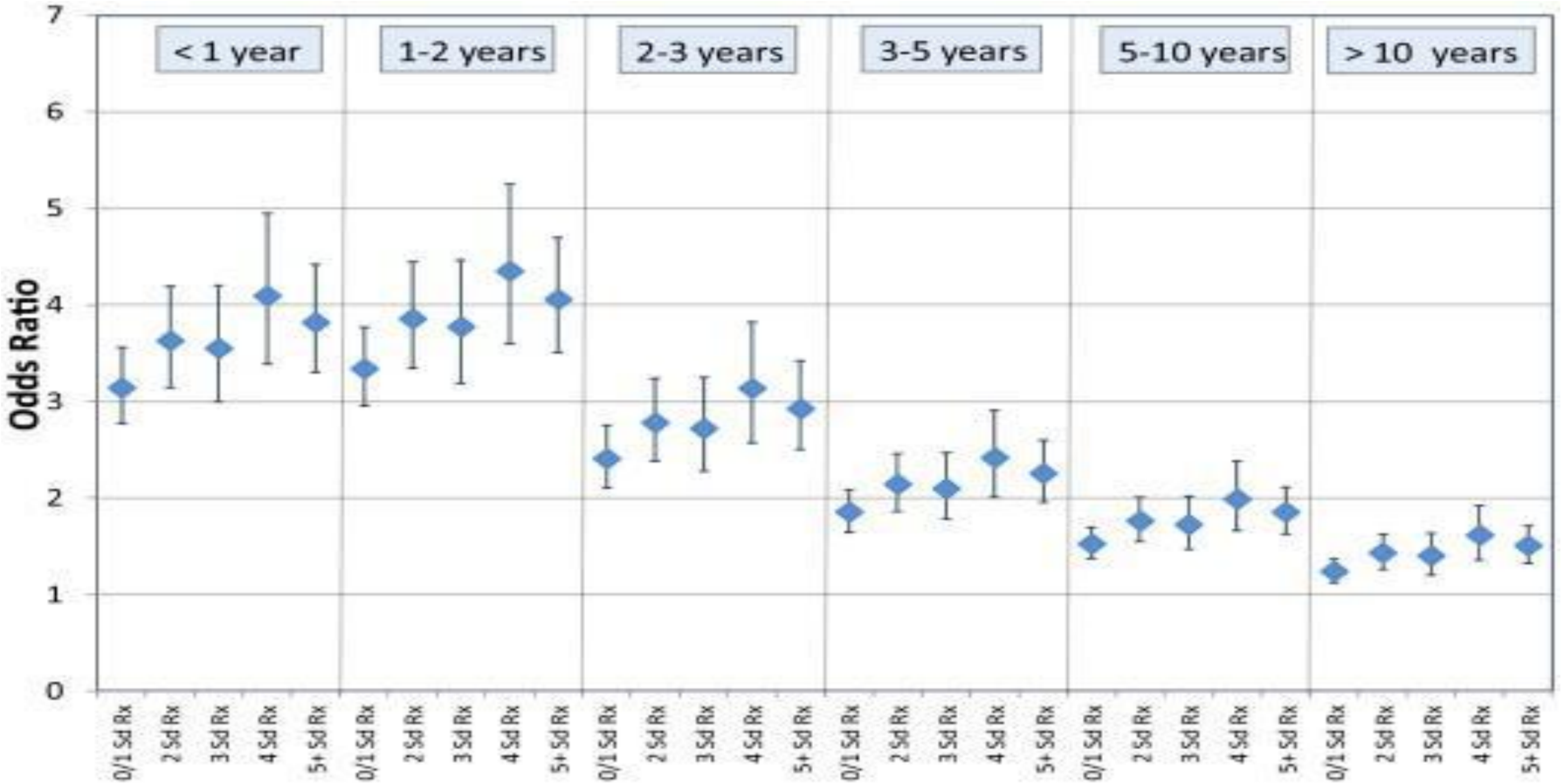
What does the research say about risk?

Predictors of large breakdowns (>12 reactors) versus small (2-4 reactors): *(Clegg et al 2018)*

Area risk in previous year (OR 2.23)
Associated herd with TB (OR 2.06)
Reactors present during previous episode (OR 2.64)
Lesion at slaughter (OR 6.63)

What about future risk after a breakdown?

How long until the future TB risk of a high-risk herd (2 reactors or lesions at slaughter) is the same as a herd with no TB history?



Odds of a restriction in 2012 by *previous history (severity)* (number of standard reactors [Sd Rx] at the previous restriction) and *previous history (time)* (time [years] since the previous restriction), in comparison to herds with no previous history of bTB. **Clegg et al 2015**

Has the risk decreased?

Risk of recurrence within three years after a herd is derestricted:

- 1998-2001: 46%
- 2008-2011: 34%
- 2012-2015: 30%

Houtsma et al, 2018

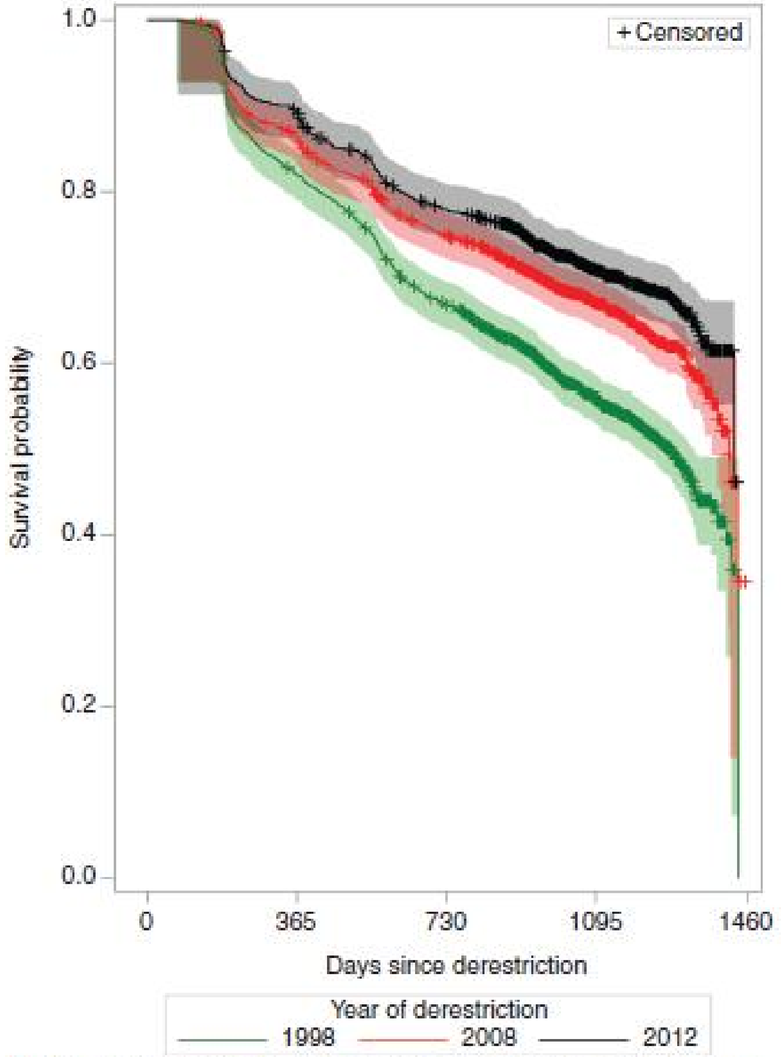


Figure 1 Kaplan-Meier survival estimates of time to subsequent restriction, by year of derestriction.

How many herds have had TB since 2013?

11,261 herds had TB since 2013 (not including feedlots)

2,105 of those had at least one breakdown lasting >180 days with at least 4 reactors per breakdown (not including feedlots)

Where are we with bovine TB?

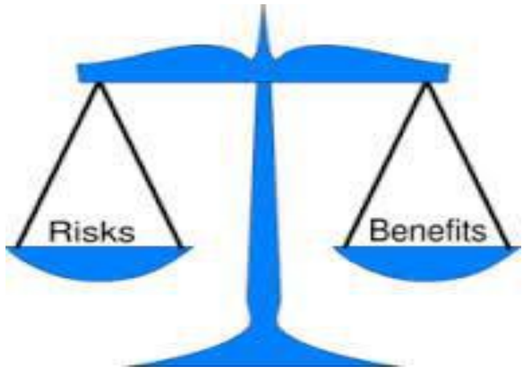
What are the risk factors?

What can you do to reduce the risk?

You <u>can</u> reduce the risk of TB

- Ask about the TB history of the rearing herd

✓ Clear history = lower risk



- Reduce the risk from badgers:

✓ Feed from raised troughs, not the ground

✓ Raised drinkers

✓ Fence off setts in pasture areas

✓ Badger-proof sheds, feedstores, etc

- Reduce the risk of contiguous spread

✓ Good fencing, no nose-to-nose contact with neighbouring herds

You <u>can</u> reduce the risk of TB

- Reduce the risk of inward movement

✓ If purchasing animals, ask about herd TB history; look for a recent TB test date

✓ Rearing herd: the fewer source herds for purchases, the lower the risk

- Reduce the risk of residual infection re-activating

✓ Cull any inconclusives; cull older animals alive during previous breakdowns

- Reduce the risk of the bacteria being brought in on equipment

✓ Biosecurity!

- Reduce the risk of undetected TB

✓ Good TB testing facilities, sufficient help on the day – less chance of missing a positive and having that missed animal cause a huge outbreak

What can we conclude?

There are risk factors for bovine TB

Farmers can take action to control their risk exposure

1. Wildlife 2. Introduction 3. Contiguous

4. Residual 5. Testing 6. Biosecurity

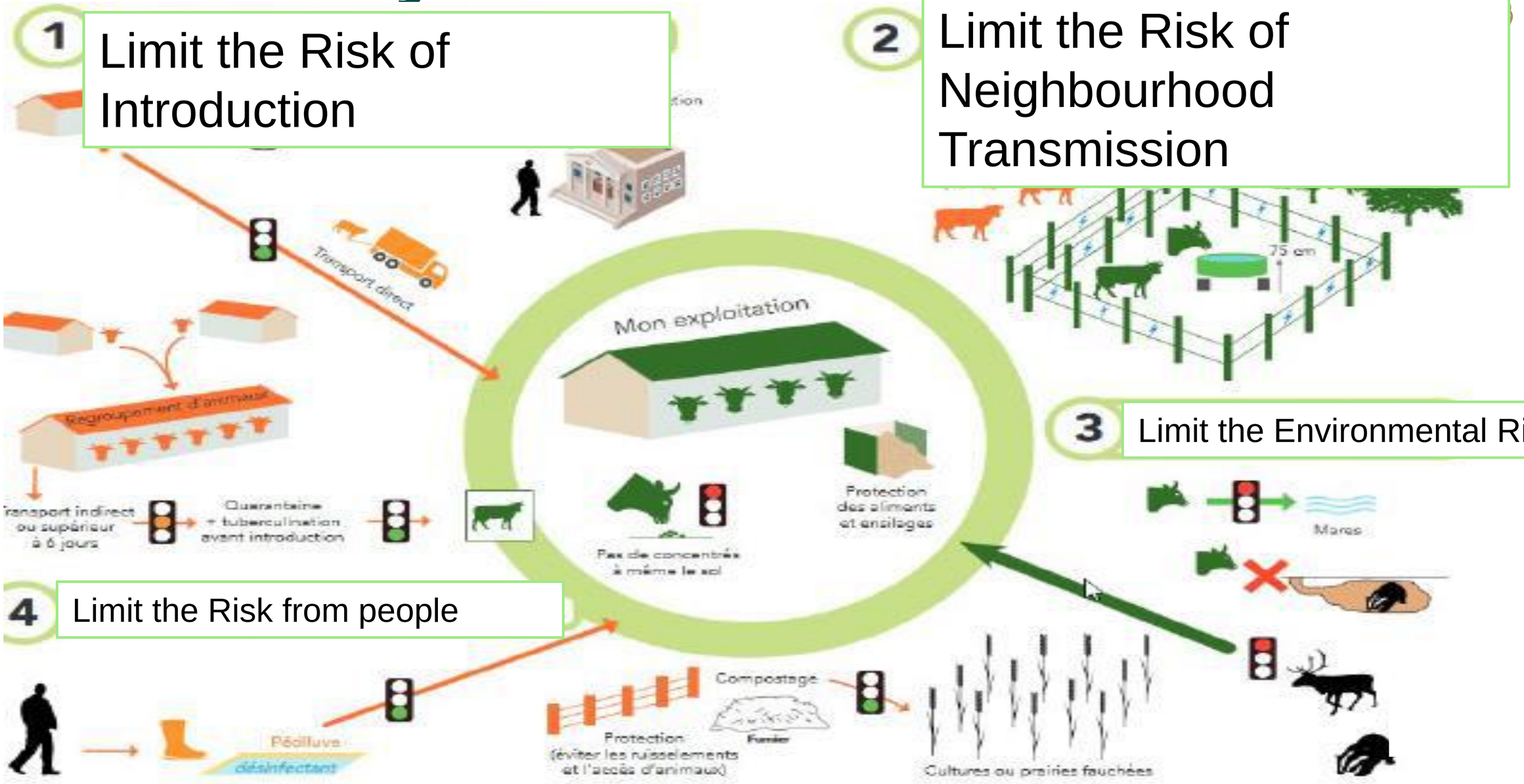

Stealth Cam 03/02/2012 12:25:26 052F


Badger leaves sett at
nearly 10pm
Stealth Cam 03/03/2012 21:54:28 039F


NEXT MORNING
Stealth Cam 03/04/2012 10:15:03 050F

Wood is not ideal for C&D, but a is movable barrier, preventing badger, fox, cat and dog access.

Biosecurity



Thank you – any questions?