bovine TB – Current Status & Trends, Epidemiology and Management Options

Foundation for Science and Technology Debate

2nd April 2014

Structure

1. Current status and trends
2. Epidemiology
3. Disease management options
1. Current status and trends

Controls now and for the future

- Risk-based strategy
- Voluntary risk-based trading
- Increased testing severity in edge & low risk areas
- Annual testing in high risk areas
- The Cattle Identification Regulations 2007
- Gamma interferon test policy
- Pre-movement testing
- Zero-tolerance of test avoidance
- Increasing controls on cattle

Slaughterhouse surveillance
Whole-herd slaughter
National testing regime
1. Current status and trends

Geographical spread of bTB

Number of skin (and interferon-γ) test reactors and slaughterhouse cases found in holdings suffering TB breakdowns with officially TB-free status withdrawn (OTF-W), per km² per year.

Data from AHVLA and The cattle Book 2008

• The national cattle herd has been declining by 90,000 animals/year
• Projected to 2035, almost 50% fewer cattle
• Decline not related to TB
• Number of badger social groups has increased by 70-105% in the same period

From Defra data
Judge et al (2014)
2. Epidemiology

- Badgers may be indirectly responsible for ~50% of infections in cattle
- But as few as ~6% may be because of direct infection
- Whole genome sequencing showing relationships

Donnelly & Hone, 2010; Donnelly & Nouvellet, 2013; Biek et al, 2012

3. Disease Management

- Containment
- Intensive testing
- Biosecurity
- Vaccination
- Wildlife control
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