Bovine Brucellosis in the United Kingdom (Northern Ireland) 2012

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Essential Elements

• Test and slaughter policy, aiming for eradication (prohibition of vaccination in the NI cattle population)

• Individual identification of animals, movement control, computer recording system (APHIS)

• EU co-financing

• Involvement of herd owners, stakeholders, laboratories, abattoirs, hauliers and milk processors in testing; dedicated implementation staff

• Collaboration with human health authorities and Health and Safety Executive

• Political will – Reduction in Brucellosis incidence to 0.0% by March 2014 has been a “Programme for Government” target
Current Control Measures - Testing

• Annual testing of herds, except some dairy herds (on Biennial testing)
• Bulk Milk Elisa testing applied to all dairy herds
• Pre-movement testing for all eligible cattle over 12 months
• Abattoir surveillance, Laboratory submissions, Abortions follow up
• ELISA testing introduced in risk herds, enhanced restrictions and testing schedules on contiguous herds
• Brucellin skin test use in selected herds *(EU Task Force Recommendation)*
• Sheep sampling *(EU Task Force Recommendation)*
• Temporary Control Areas with increased testing and controls
Programme Management in 2012

- Brucellosis Programme Management team: range of functions including programme monitoring and management, change management and provision of veterinary advice
- Management database designed to facilitate local management of outbreaks
- Treatment of slurry with lime in breakdown herds to kill *Brucella abortus*
- Tracing and purchase of the progeny of confirmed reactors
- Strain typing of all cultures to assist with epidemiological investigation
- Brucellosis audits of field offices by HQ staff, Cattle identification inspections for herds experiencing a breakdown
- Publicity Campaign – posters, press articles - emphasis on abortion reporting
- Staff training and Private Veterinary Practitioner meetings to update personnel
EU Task Force visit 2011 Follow Up

Recommendations

1. Continue with the measures being employed, especially in high risk areas
   Reduction of measures might be considered in free areas
   In higher risk areas, consider implementation of additional measures (eg testing of young animals, extended use of brucellin skin test, and use of parallel testing)
   YES

2. Careful consideration should continue to be given to any herd that is not depopulated
   YES

3. An upper limit (cap) for compensation should be set.
   YES - Reduction in compensation for negative-in-contacts from 100% to 75% in September 2012
Brucellosis Herd and Animal Incidence:-
12 month moving average Jan 2002 to Feb 2013
Confirmed Annual Herd Incidence

BR annual herd incidence where infection confirmed by culture: December 2005 to February 2013
## UK (NI): Test and Disease Statistics: 2007-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of cattle tested</th>
<th>Herd incidence</th>
<th>Confirmed herd incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>911,394</td>
<td>0.72</td>
<td>0.25</td>
</tr>
<tr>
<td>2008</td>
<td>908,811</td>
<td>1.12</td>
<td>0.16</td>
</tr>
<tr>
<td>2009</td>
<td>888,898</td>
<td>0.35</td>
<td>0.05</td>
</tr>
<tr>
<td>2010</td>
<td>867,402</td>
<td>0.38</td>
<td>0.10</td>
</tr>
<tr>
<td>2011</td>
<td>890,263</td>
<td>0.10</td>
<td>0.02</td>
</tr>
<tr>
<td>2012</td>
<td>879,831</td>
<td>0.12</td>
<td>0.005</td>
</tr>
</tbody>
</table>
## Data on infection 2010 - 2012

<table>
<thead>
<tr>
<th>Species</th>
<th>Number of new herds with serological reactors</th>
<th>Number of herds confirmed by culture</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 - Bovine</td>
<td>74</td>
<td>25</td>
</tr>
<tr>
<td>2011 - Bovine</td>
<td>21</td>
<td>4</td>
</tr>
<tr>
<td>2012 - Bovine</td>
<td>23</td>
<td>1</td>
</tr>
</tbody>
</table>
## Herds restricted for disease reasons

<table>
<thead>
<tr>
<th>Date</th>
<th>Herds restricted for disease reasons, excluding associated herds</th>
<th>Herds under surveillance, excluding associated herds</th>
<th>Restricted herds with confirmed disease</th>
<th>Percentage of herds with OBF status</th>
</tr>
</thead>
<tbody>
<tr>
<td>31/12/09</td>
<td>32</td>
<td>22,607</td>
<td>16</td>
<td>99.86</td>
</tr>
<tr>
<td>31/12/10</td>
<td>38</td>
<td>22,303</td>
<td>18</td>
<td>99.83</td>
</tr>
<tr>
<td>31/12/11</td>
<td>11</td>
<td>22,083</td>
<td>9</td>
<td>99.9</td>
</tr>
<tr>
<td>31/12/12</td>
<td>18</td>
<td>22,168</td>
<td>1</td>
<td>99.92</td>
</tr>
</tbody>
</table>
Summary

From 2007 onwards, intensive disease control efforts have resulted in significant improvements in disease levels.

In December 2009, there was an apparent deliberate infection incident which resulted in an increase in the number of infected herds in 2010, setting back the substantial progress made.

Further measures, including Temporary Control Areas and extended periods of short interval testing in risk herds were applied with the aim of early detection of spread. This helped to reduce new breakdowns during 2010 and 2011, with a total of 4 confirmed breakdowns for 2011.

As most of the outbreaks in 2010/2011 were concentrated in one geographical area it was not unexpected that recrudescence of infection occurred in the same area in February 2012. However, there have been no other confirmed Brucellosis outbreaks in Northern Ireland since that date.

We are hopeful and cautiously optimistic that the confirmed breakdown in Feb 2012 might be our last.
2013 strategy

• Maintain focus on testing and disease management

• Enhance ‘additional measures’ as per Task Force recommendations:
  - Introduction of Parallel Testing using SAT and ELISA (currently under trial for high risk tests)
  - Non-Specific Infection policy (Brucellin Skin Test)

• Communications strategy:
  - emphasise abortions reporting and biosecurity awareness
  - Brucellosis Stakeholders’ Group, co-operation with ROI

Possible eradication by March 2015