

Llywodraeth Cymru

Welsh Government

Intensive Action Area: then and now (2010-2022)



Animal & Plant Health Agency

Asiantaeth lechyd Anifeiliaid a Phlanhigion



Lucia Juskova¹, Sarah Seery¹, David C. Harris¹, Terry Galloway¹, Kierian John¹, James Webster², Thomas McCabe² ¹Bovine TB Epidemiology Team, Animal and Plant Health Agency, Wales, United Kingdom ²Welsh Government

Introduction

- The Intensive Action Area (IAA) in north-eastern Pembrokeshire was established in May 2010¹
- Since 2012, it had the highest TB breakdown density in Wales³ \bullet
- Accounts for 14% of national compensation cost in Wales with 25% of herds suffering a breakdown⁵ \bullet
- This 288km² area (Figure 1) accounts for approximately 2.5% of the Welsh national herd \bullet
- Over 70% of animals in the area are dairy cattle
- The last 10 years have seen a 25% loss in beef herds and cattle numbers



New Specific measures introduced in 2010

- Introduction of six-monthly testing (annual testing across the rest of Wales)
- Compulsory pre-movement testing
- Increase use of gamma interferon testing (gIFN)
- Annual advisory biosecurity visits conducted by private veterinarians (2010-2012)
- Goat and camelid herds were subjected to one skin test



Wildlife management and monitoring

- Wales Road Traffic Accident (RTA) Badger collection between 2005-2006⁴
- IAA Badger Found Dead scheme (BFDS) started in 2012, followed by All Wales Badger Found Dead (AWBFD) from September 2014
- Five-year Badger Vaccination Project started in 2012 using sett survey data collected in 2010 (four years completed)
- Badger Population Assessment in 2015 collection of hair samples from 550 hair traps and 70 randomly selected main setts²
- By the end of four consecutive years of vaccination, 67–83 % of the

- Map of Wales and the Intensive Action Area (IAA)

Cattle persistent breakdowns

- Breakdowns classified as persistent when have been under restrictions for ≥550 days from 2014
- Additional measures for persistent breakdowns introduced in 2017;
 - **Increased sensitivity of skin testing**
 - Mandatory removal of standard inconclusive reactors (IR) ii.
 - **Compulsory blood testing of severe IRs (Jan 2020)** iii.
 - Agreed Action Plan iv.
- The number of persistent herds increased up to 2015, then continuous plateau
- total badger population in the IAA would have received at least one dose of vaccine²
- Decrease in estimated prevalence from 2005-2014 (14.4%) to 2015-2022 (7.3%) (Table 1)

BFD Scheme	Number of submissions in the IAA	Negative	Positive	Prevalence %
RTA 2005-2006	21	18	3	16.67
IAA BFDS 2012-2014	83	71	12	14.46
AWBFD 2015-2016	48	45	3	6.25
AWBFD 2017-2019	21	19	2	9.52
AWBFD 2020-2022	17	16	1	5.90

Table 1 – Badger found dead submissions in the Intensive Action Area between 2005-2022







- Continuation of six-monthly testing
- Over a 60% drop in TB incidence in cattle herds between 2010-2020 (Figure 2 and 3)
- 1- and 2- year recurrence at the lowest in 14 years
- A 73% decrease in skin test reactors between 2009 and 2022 (contrary to gIFN reactors with 7% increase)

What next?

- Is a 6-monthly testing regime an appropriate intervention for other areas with high incidence of bTB in Wales?
- What is the long-term impact of badger vaccination on bTB incidence in cattle?





Figure 2 - Line graph showing incidence and prevalence of TB infection in cattle herds for Intensive Action Area (IAA) and Wales from 2010 - 2021

Figure 3 - New breakdowns in cattle herds in the Intensive Action Areas (IAA)

References:

- 1. Differences-between-bovine-tb-indicators-in-the-intensive-action-area-and-the-comparison-area.pdf (gov.wales)
- 2. Estimating wildlife vaccination coverage using genetic methods ScienceDirect
- 3. https://bvajournals.onlinelibrary.wiley.com/doi/full/10.1136/vr.104718
- 4. Temporal and spatial Mycobacterium bovis prevalence patterns as evidenced in the All Wales Badgers Found Dead (AWBFD) survey of infection 2014–2016
- 5. https://www.gov.wales/sites/default/files/publications/2020-09/intensive-action-area-future-policies.pdf