



**Revised** quarterly publication of National Statistics on the incidence and prevalence of tuberculosis (TB) in Cattle in Great Britain – to end September 2015

These statistics were initially released on Wednesday 9 December 2015 at 9:30 but the figures on 'disease restricted herds at the end of the period' and the prevalence headline statistics were removed from the series following the discovery of an error in a calculation. **These statistics and this quarterly statistical notice covering the period to September 2015 were reissued on 13 January 2016**. The underlying monthly datasets for the period ending October 2015 were also published on 13 January 2016.

These statistics are obtained from the Animal and Plant Health Agency (APHA) work management IT support system (Sam), used for the administration of TB testing in GB. They are a snapshot of the position on the date on which the data were extracted. These statistics may be subject to regular revision until all test results are available. In particular figures from 2013 onwards will be subject to further revision as test and incident records are completed.

Short term changes in these statistics should be considered in the context of long term trends. The charts in this statistical notice give the latest indication of how trends in bovine TB have changed since 1996.

## Key points – September 2015

Please read the detailed guidance on how these measures are calculated at https://www.gov.uk/government/statistics/data-and-methodology.

Table 1: Herd incidence and herd prevalence

	New herd incidents per	100 herd years at risk	Disease restricted herds as a percentage or registered herds at end					
	12 months to end Sept 2014	12 months to end Sept 2015	Sept 2014	Sept 2015				
England	8.7	9.0	5.0%	5.5%				
High risk area	17.6	18.1	9.9%	10.9%				
Edge area	4.1	5.0	3.0%	3.2%				
Low risk area	0.7	0.8	0.2%	0.3%				
Scotland	0.5	0.6	0.2%	0.2%				
Wales	7.8	8.4	4.6%	5.3%				

Both the **herd incidence rate and herd prevalence rate have increased** between the last two 12-month periods though the latter has remained stable in Scotland. Incidence and prevalence are highest in the High Risk Area of England (HRA) and lowest in the Low Risk Area of England (LRA) and in Scotland.

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Table 2: New herd incidents and non-OTF herds

	Ne	ew herd incidents		Herds not officially TB free at the end of the perio due to a bovine TB incident (non-OTF herds)						
	12 months to end Sept 2014	12 months to end Sept 2015	Year-on-year change	Sept 2014	Sept 2015	Year-on-year change				
England	3,829	3,856	1%	2,615	2,803	7%				
High risk area	3,349	3,392	1%	2,341	2,511	7%				
Edge area	370	324	-12%	227	229	1%				
Low risk area	110	140	27%	47	63	34%				
Scotland	45	40	-11%	28	26	-7%				
Wales	819	889	9%	567	615	8%				

Between the 12 months ending September 2015 and the previous 12 month period, there was an **increase in the number of new TB incidents** in Wales and to a lesser extent England. There were increases in the percentage of herds which were non-OTF due to a TB incident in all areas except Scotland, where the number of non-OTF herds is very low and approximately 45% of cattle herds are now exempt from routine TB surveillance testing.

In the Edge Area the **number of incidents decreased** but the incidence rate increased. This is the result of a lower number of years at risk for herds tested in the 12 months to September 2015 compared with the 12 months to September 2014. This may be an after-effect of herds moving to being annually tested from January 2013, or herds being restricted for longer in the 12 months to September 2015 so they could contribute less, or not at all, to the denominator (which only includes time at risk for unrestricted herds).

In Scotland and the LRA, there are proportionately more false positive results to the tuberculin skin test than elsewhere in GB¹. Consequently it is also important to consider the number of new TB incidents where OTF status is withdrawn (OTFW) following confirmation of TB by post-mortem examination or laboratory culture of tissue samples. Between the 12 months ending September 2014 and the 12 months ending September 2015, the number of such incidents increased from 30 to 44 in the LRA and decreased from 17 to 12 in Scotland. However, the OTFW incidence rate has remained stable in both areas at 0.2 breakdowns per 100 herd-years at risk.

Table 3: Total animals slaughtered\*

	<b>9</b>		
	12 months to end Sept 2014	12 months to end Sept 2015	Year-on-year change
England	25,865	27,334	6%
High risk area	22,417	23,835	6%
Edge area	2,777	2,933	6%
Low risk area	671	566	-16%
Scotland	273	122	-55%
Wales	5,911	7,380	25%

<sup>\*</sup> Includes reactors, direct contacts and inconclusive reactors.

There was an increase **in the number of cattle slaughtered** due to a TB incident in the HRA and Edge Area of England and in Wales between the 12 months ending September 2015 and the previous twelve months. There was a decrease in the LRA of England and in Scotland.

Further detail can be found in Tables 4-7. The charts published in this statistical notice, together with the equivalent figures from January 1996 onwards, are also available in spreadsheet format at <a href="https://www.gov.uk/government/publications/incidence-of-tuberculosis-tb-in-cattle-in-great-britain">https://www.gov.uk/government/publications/incidence-of-tuberculosis-tb-in-cattle-in-great-britain</a>.

<sup>&</sup>lt;sup>1</sup> See for example: <a href="http://veterinaryrecord.bmj.com/content/177/10/258.summary.pdf">http://veterinaryrecord.bmj.com/content/177/10/258.summary.pdf</a> and <a href="http://veterinaryrecord.bmj.com/content/177/10/258.full.pdf">http://veterinaryrecord.bmj.com/content/177/10/258.full.pdf</a> + http://veterinaryrecord.bmj.com/content/177/10/258.full.pdf</a> + http://veterinaryrecord.bmj.com/content/177/10/258.summary.pdf</a> and <a href="http://veterinaryrecord.bmj.com/content/177/10/258.summary.pdf">http://veterinaryrecord.bmj.com/content/177/10/258.summary.pdf</a> and <a href="http://veterina

# **Herd incidence**

Figure 1: New herd incidents per 100 herd years at risk of infection during the year - GB

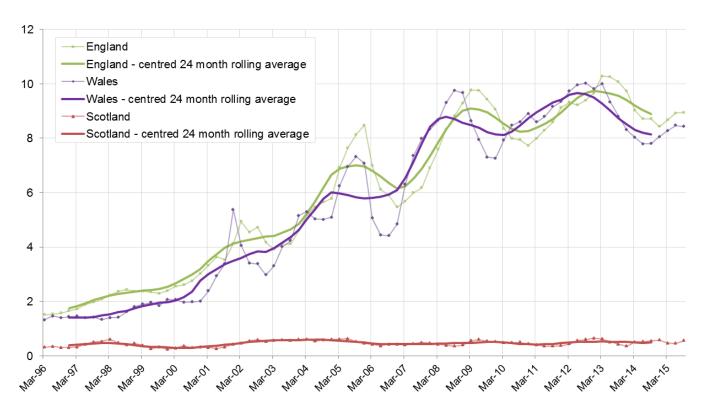


Figure 2: New herd incidents per 100 herd years at risk of infection during the year - England

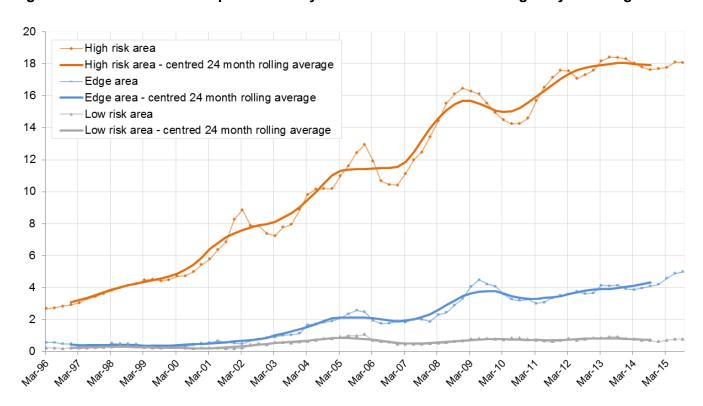
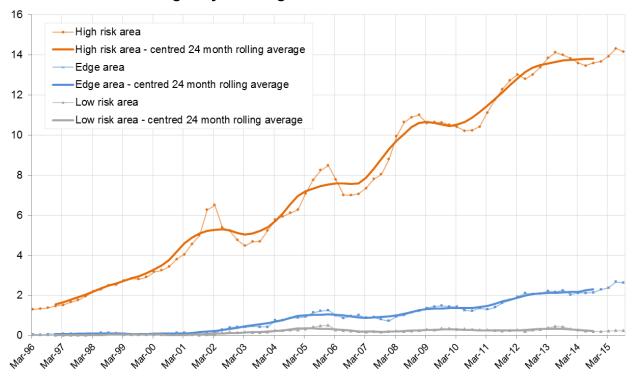


Figure 3: New herd incidents with officially TB-free status withdrawn (OTFW) per 100 herd years at risk of infection during the year - GB



**NOTE**: from 2011, the figures presented for OTF-W incidents in Wales are not directly comparable to England or Scotland. This is due to the inclusion of some incidents in Wales which have their OTF status withdrawn for epidemiological reasons, without confirmation via post mortem examination or bacteriological culture. Elsewhere in GB these would be classed as OTF-S.

Figure 4: New herd incidents with officially TB-free status withdrawn (OTFW) per 100 herd years at risk of infection during the year – England

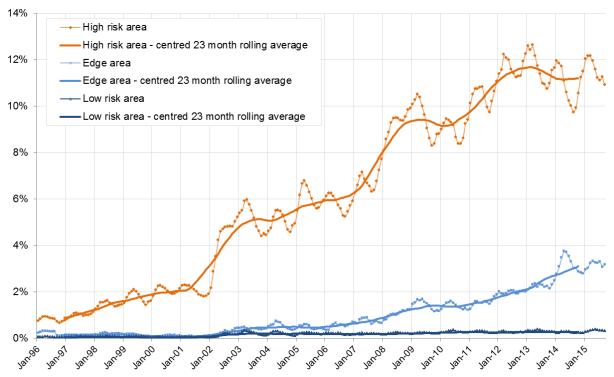


# **Herd prevalence**

Figure 5: Number of herds under disease restrictions at the end of the period as a percentage of registered and active herds – GB



Figure 6: Number of herds under disease restrictions at the end of the period as a percentage of registered and active herds – England



### Trends in TB

There has been an overall long-term upward trend in the incidence of TB in cattle herds in England and Wales since 1996 (when these statistical series begin), although there is evidence that the rate of new incidents is levelling off in most areas of the country.

There was a fairly steady increase in the herd incidence rate until early 2001 when there was an outbreak of foot and mouth disease (FMD) from February to October. During this period TB testing was suspended. In the meantime, new bTB breakdowns continued to be detected on farms through routine post-mortem meat inspection of cattle carcases in abattoirs. Following the 2001 FMD outbreak there was a gradual resumption in TB testing.

There appears to be a three-year cycle in the bTB herd incidence rate from 2001 onwards. This can be observed in figures 1 to 4, above, with peaks in 2005, 2008 and (to a lesser extent) 2013, and troughs in 2006 and 2009. This pattern has stabilised somewhat in recent years. There is no clear explanation for this pattern, because bTB is a chronic disease with a complex epidemiology and reservoirs of infection in cattle and, in some areas of GB, wildlife. As a result of surveillance and testing changes, there has been no stable time series until recently. For example there have been different herd testing frequencies in each parish over time, ranging from annual to four-yearly and changing every year until those frequencies were unified in Wales in 2010 (annual) and in England in 2013 (annual and four-yearly).

There are several possible explanations:

- 1. The smoothed trend represents true seasonal changes in the transmission risk and prevalence of infection in wildlife and cattle populations. However there is no strong evidence to support this.
- 2. After FMD higher risk herds were tested every 3 to 4 years and could have contributed to a cyclically higher incidence rate. However breakdowns in the 4-yearly (and formerly 3-yearly) testing areas represent a small and decreasing proportion of the breakdowns in any given year.
- 3. When testing resumed in 2002 following the 2001 FMD outbreak, high-risk herds may have been identified and put under restrictions if a reactor was identified, then control tested for a period (when they cannot generate a new incident). Once the bTB incident has been resolved and OTF herd status is restored, the herd becomes susceptible to a new incident as it undergoes post-breakdown surveillance tests at 6 and 18 months after regaining OTF status.
- 4. The incidence rate reflects changes to testing policy unrelated to the FMD outbreak, in particular increases in testing in 2005 and 2008.

In terms of prevalence (the percentage of herds under disease restrictions due to TB) figure 5 shows an increase in England and Wales at the beginning of 2002. This may have been the result of the suspension of TB testing during the FMD outbreak in February-October 2001 (including the 60-day tests of TB-infected herds to regain OTF status) along with the detection of new breakdowns through routine slaughterhouse surveillance. Although TB herd testing gradually resumed from the end of 2001, a proportion of higher-risk herds were put under TB restrictions pending completion of their overdue tests. Prevalence continued to increase steadily from 2002. In Wales there were peaks in 2009 and 2012, following which there has been a decline and stabilisation of the trend. After a peak in England in early 2013 the trend appears to have stabilised. However, for both England and Wales it is too early to be able to establish whether this is part of a new longer term trend.

# Regional differences

The regional and county-level statistics published as part of this statistical notice show that there are considerable differences in the distribution and frequency of bovine TB across GB.

Note that since 2011, the trends for the herd incidence rate showing incidents with officially TB-free status withdrawn (OTFW) per 100 herd years at risk of infection during the year (i.e. figure 3) are not directly comparable for Wales and the other countries of GB. This is because from 2011 onwards, for Wales the number of incidents includes those where there is no confirmation of TB via post mortem examination or bacteriological culture but where the herd's OTF status is withdrawn for epidemiological reasons. Such herds in England and Scotland are not included in the count of OTFW incidents. The herd incidence rate for all incidents (figure 1) should be used to compare countries.

Scotland, which has had officially TB-free (OTF) status since 2009, has relatively few herd breakdowns. The herd incidence is very low and stable and is largely driven by sporadic introductions of infected cattle into Scotland.

In Wales, TB incidence and prevalence varies across regions. The South West, East and South East regions have high levels of bovine TB whereas the regions in the North West, North East and South Wales have relatively low levels. To attempt to contain the disease and prevent its spread into these lower-incidence regions, all herds in Wales are tested for the disease at least annually. The strategically-located Intensive Action Area (north Pembrokeshire and small parts of Ceredigion and Carmarthenshire) has one of the highest incidence rates of bovine TB in Wales. Here there are extra measures in place to control the disease, such as stricter cattle controls, 6-monthy testing and improved biosecurity.

In England, there are wide geographical variations in the incidence and prevalence of bTB. This is reflected in the division of the country into three different epidemiological areas, with different disease control strategies and herd testing regimes applied in each of them:

- In the Low Risk Area of the North, East and South East of England, the incidence of bTB is very low and stable and most cattle herds are routinely tested every four years. Similar to Scotland, the majority of breakdowns in the Low Risk Area can be linked to movements of undetected infected cattle from other areas of GB.
- In the Edge Area, which spans most of Cheshire, parts of the counties of Derbyshire,
  Warwickshire, Oxfordshire and East Sussex and the whole of Nottinghamshire, Leicestershire,
  Northamptonshire, Buckinghamshire and Hampshire, the herd incidence is higher than in the Low
  Risk Area, although this varies from county to county. After a small spike in the first half of 2014
  prevalence may be starting to stabilise.
- In the *High Risk Area* of the West Midlands and South West of England, the incidence and prevalence of infected cattle have increased steadily to relatively high levels. This is partly a result of a reservoir of endemic *M. bovis* infection in the local wildlife. There is evidence of a slowing down in both the incidence and prevalence rates since around 2012.

Table 4: Herd and test numbers – Great Britain

		gland			Sco	tland			W	ales		Great Britain (5)				
	Ü	Total tests on herd (2)	Tests on officially TB free (OTF) herds (3)	Total cattle tests (4)	Number of cattle herds registered on Sam	Total tests on herd	Tests on officially TB free (OTF) herds	Total cattle	Number of cattle herds registered on Sam	Total tests on herd	Tests on officially TB free (OTF) herds	Total cattle	Number of cattle herds registered on Sam	Total tests on herd	Tests on officially TB free (OTF) herds	Total cattle tests
2005	62,015	40,660	33,428	3,656,667	14,667	3,884	3,800	226,921	15,083	11,296	9,456	915,856	91,765	55,844	46,688	4,799,522
2006	60,960	46,791	40,182	4,086,589	14,495	4,171		235,892	14,904	13,452	11,725	1,086,672	90,359	64,417	56,013	5,409,238
2007	58,871	46,599	39,610	4,223,950	14,100	4,525	•	286,727	14,148	13,011	10,801	1,221,558	87,119	64,138	54,849	5,732,372
2008	58,380	47,417	38,505	4,540,585	13,889	4,367	4,289	257,780	13,780	14,646	12,058	1,380,278	86,049	66,433	54,855	6,178,790
2009	57,376	50,141	40,333	4,829,107	13,759	3,641	3,555	217,737	13,183	18,422	15,005	1,793,639	84,318	72,205	58,894	6,840,614
2010	56,515	52,955	42,896	5,367,553	13,675	3,580	•	231,996	12,939	17,936	15,176	1,848,115	83,129	74,473	61,586	7,447,694
2011	54,293	54,122	42,825	5,496,049	13,316	3,426		229,824	12,821	19,108	16,302	1,861,996	80,443	76,656	62,486	7,587,869
2012	53,561	63,499	51,815	5,857,743	12,981	2,880	•	222,368	12,721	22,210	19,039	1,950,979	79,321	88,589	73,665	8,031,097
2013	53,706	64,428	52,807	6,283,185	12,952	2,322	,	162,945	12,642	20,082	17,085	1,943,846	79,392	86,848	72,183	8,390,230
2014	51,722	68,907	57,711	6,926,893	13,070	2,579		217,258	12,019	19,643	17,295	1,899,712	76,916	91,159	77,535	9,044,205
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12 months to end Sept 14	52,266	68,112	56,779	6,798,631	13,041	2,583	2,511	193,373	12,280	19,596	17,153	1,905,103	77,691	90,320	76,472	8,897,400
12 months to end Sept 15	51,153	69,750	58,375	7,199,143	13,154	2,624	2,553	268,069	11,705	20,493	18,107	1,976,899	76,062	92,900	79,068	9,444,499
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Jan-13	53,532	6,366	5,281	566,452	12,978	380	375	28,352	12,689	2,007	1,686	176,411	79,256	8,753	7,342	771,215
Feb-13	53,540	6,551	5,444	592,997	12,980	315	301	30,357	12,680	2,139	1,817	190,978	79,261	9,005	7,562	814,332
Mar-13	53,585	6,708	5,716	629,631	12,993	234	231	17,453	12,675	2,313	2,063	206,281	79,323	9,255	8,010	853,365
Apr-13	53,668	6,022	4,850	618,128	13,013	165		11,698	12,685	1,897	1,597	195,632	79,442	8,084	6,610	825,458
May-13	53,772		4,280	493,434	13,018	175		10,512	12,691	1,808	1,524	160,952	79,550	7,358	5,974	664,898
Jun-13	53,816	3,893	2,996	370,103	13,030	76		3,048	12,719	1,118	875	109,360	79,639	5,087	3,946	482,511
Jul-13	53,809	3,946	2,949	401,226	13,043	77		2,722	12,718	1,057	837	107,280	79,658	5,080	3,860	511,228
Aug-13	53,779		3,363	401,588	13,042	64		4,102	12,729	1,221	986	131,617	79,627	5,550	4,413	537,364
Sep-13	53,847	4,405	3,567	426,489	12,925	78		3,698	12,742	1,497	1,269	145,515	79,612	5,982	4,913	575,851
Oct-13	53,910	5,388	4,520	534,613	12,938	144		6,961	12,675	1,734	1,539	180,174	79,608	7,271	6,205	721,777
Nov-13	53,834	6,380	5,472	700,083	12,948	291	290	19,647	12,657	1,910	1,679	207,034	79,522	8,584	7,444	926,779
Dec-13	53,706	5,133	4,369	548,441	12,952 12,968	323 367	320 364	24,395 34,497	12,642	1,381	1,213	132,612	79,392	6,839	5,904 8,134	705,452
Jan-14	53,580 53,557	7,340 6,750	6,053 5,775	767,987 653,049	12,968	357	354 353	30,689	12,576 12,541	1,983 1,944	1,714 1,766	197,101 180,653	79,216 79,156	9,693 9,050	8,134 7,897	999,612 864,394
Feb-14 Mar-14	53,376	7,171	6,246	671,707	12,987	315		24,030	12,541	2,091	1,766	184,501	79,156 78,856	9,050	7,897 8,444	880,267
Apr-14	53,429	6,073	5,042	607,341	12,983	177	171	12,715	12,410	1,829	1,611	178,438	78,903	8,082	6,827	798,532
May-14	53,433	6,320	5,188	550,158	13,024	200		12,658	12,393	1,779	1,560	154,376	78,943	8,301	6,943	717,234
Jun-14	53,437	4,444	3,521	425,461	13,044	106		8,911	12,366	1,167	972	113,000	78,946	5,717	4,589	547,372
Jul-14	53,285	4,449	3,465	459,126	13,047	108		5,352	12,314	1,169	968	114,196	78,750	5,730	4,532	578,736
Aug-14	53,282	4,066	3,303	399,697	13,048	104	95	6,826	12,295	1,207	1,010	111,516	78,728	5,379	4,410	518,049
Sep-14	52,266	4,598	3,825	480,968	13,041	95	88	6,692	12,280	1,402	1,228	151,502	77,691	6,097	5,143	639,196
Oct-14	51,770	6,045	5,147	635,521	13,063	145	140	10,676	12,106	1,952	1,758	206,216	77,041	8,147	7,050	852,476
Nov-14	51,789	6,520	5,750	685,987	13,065	283	276	28,263	12,071	1,706	1,553	168,943	77,033	8,513	7,583	883,224
Dec-14	51,722	5,131	4,396	589,891	13,070	326	323	35,949	12,019	1,414	1,262	139,270	76,916	6,873	5,983	765,113
Jan-15	51,226	7,293	6,121	752,399	13,063	454	448	52,028	11,960	2,164	1,937	210,780	76,334	9,915	8,510	1,015,240
Feb-15	51,110	6,839	5,838	679,946	13,077	391	384	49,734	11,879	2,097	1,919	171,006	76,132	9,331	8,145	900,765
Mar-15	51,073	6,949	6,023	714,104	13,080	297	291	34,088	11,871	2,211	2,048	202,676	76,087	9,459	8,364	950,947
Apr-15	51,092	7,036	5,813	696,416	13,097	186	176	18,133	11,858	2,110	1,838	201,734	76,109	9,339	7,834	916,350
May-15	51,091	4,975	4,085	493,111	13,134	202	199	19,112	11,860	1,518	1,304	141,298	76,154	6,697	5,590	653,524
Jun-15	51,148	4,586	3,633	480,467	13,148	85	79	6,579	11,864	1,166	959	116,625	76,198	5,838	4,672	603,674
Jul-15	51,219	5,313	4,140	554,233	13,165	90	84	3,984	11,856	1,422	1,155	141,760	76,278	6,827	5,381	700,000
Aug-15	51,116	4,360	3,566	440,263	13,160	81	75	4,877	11,812	1,296	1,123	133,332	76,130	5,737	4,764	578,472
Sep-15	51,153	4,703	3,863	476,805	13,154	84	78	4,646	11,705	1,437	1,251	143,259	76,062	6,224	5,192	624,714

Table 5: Herd and test numbers – England

Table 5: Herd an	<u>a test nu</u>			na													
		High r	risk area			Edg	e area			Low r	isk area		England				
	Number of cattle herds registered on Sam (1)	Total tests on herds (2)	Tests on officially TB free (OTF) herds (3)	Total cattle tests (4)	Number of cattle herds registered on Sam	Total tests on herd	Tests on officially TB free (OTF) herds	Total cattle tests	Number of cattle herds registered on Sam	Total tests on herd	Tests on officially TB free (OTF) herds	Total cattle tests	Number of cattle herds registered on Sam	Total tests on herd	Tests on officially TB free (OTF) herds	Total cattle tests	
2005	29,040	31,615	24,681	3,153,470	9,110	3,232	3,080	190,014	23,865	5,813	5,667	313,183	62,015	40,660	33,428	3,656,667	
2006	28,501	33,667	27,358	3,350,061	9,023	4,644	4,483	277,719	23,436	8,480	8,341	458,809	60,960	46,791	40,182	4,086,589	
2007	27,466	33,183	26,583	3,512,762	8,627	4,979	4,749	308,840	22,778	8,437	8,278	402,348	58,871	46,599	39,610	4,223,950	
2008	27,167	35,287	26,786	3,848,087	8,505	4,781	4,497	320,008	22,708	7,349	7,222	372,490	58,380	47,417	38,505	4,540,585	
2009	26,659	37,845	28,578	4,158,654	8,353	5,315	4,929	355,455	22,768	6,981	6,826	314,998	57,376	50,141	40,333	4,829,107	
2010	25,965	38,303	28,378	4,512,604	8,443	6,066	5,668	428,467	22,107	8,586	8,381	426,482	56,515	52,955	42,896	5,367,553	
					7,970				-			-	-		42,895		
2011 2012	25,189 24,748	40,536 47,631	29,905 36,628	4,646,232 4,979,533	7,970 7,767	6,016 7,713	5,539 7,181	491,483 552,248	21,134 21,046	7,570 8,155	7,381 8,006	358,334 325,962	54,293 53,561	54,122 63,499	42,825 51,815	5,496,049 5,857,743	
2012	24,748	46,665	35,841	5,045,666	7,767	9,196	8,620	778,103	21,046	8,567	8,346	459,416	53,706	64,428	52,807	6,283,185	
2013	23,382	47,499	37,456	5,186,694	7,435	11,220	10,259	1,104,018	20,905	10,188	9,996	636,181	51,722	68,907	57,711	6,926,893	
2014	23,382	47,433	37,430	3,100,034	7,433	11,220	10,233	1,104,018	20,303	10,100	3,330	030,101	31,722	00,507	37,711	0,920,893	
12 months to end Sept 14	23,624	47,326	37,122	5,167,106	7,546	11,001	10,083	1,042,078	21,096	9,785	9,574	589,447	52,266	68,112	56,779	6,798,631	
12 months to end Sept 15	23,023	48,013	37,723	5,349,000	7,212	11,180	10,308	1,116,816	20,918	10,557	10,344	733,327	51,153	69,750	58,375	7,199,143	
Jan-13	24,725	4,600	3,570	464,926	7,771	768	729	53,890	21,036	998	982	47,636	53,532	6,366	5,281	566,452	
Feb-13	24,732	4,714	3,663	477,641	7,770	853	815	66,449	21,038	984	966	48,907	53,540	6,551	5,444	592,997	
Mar-13	24,753	4,823	3,905	495,488	7,776	956	906	84,868	21,056	929	905	49,275	53,585	6,708	5,716	629,631	
Apr-13	24,797	4,374	3,260	503,086	7,784	914	868	82,767	21,087	734	722	32,275	53,668	6,022	4,850	618,128	
May-13	24,813	3,992	2,975	395,808	7,810	769	714	68,587	21,149	614	591	29,039	53,772	5,375	4,280	493,434	
Jun-13	24,787	2,909	2,071 1,929	307,201	7,834 7,853	512 597	472 533	38,548	21,195	472 506	453 487	24,354	53,816	3,893 3,946	2,996	370,103	
Jul-13 Aug-13	24,720 24,659	2,843 3,220	2,394	334,091 336,167	7,853 7,860	586	539	43,035 42,900	21,236 21,260	455	430	24,100 22,521	53,809 53,779	4,261	2,949 3,363	401,226 401,588	
Sep-13	24,659	3,220	2,594	355,000	7,800	646	599	49,336	21,200	472	461	22,321	53,847	4,405	3,567	401,388	
Oct-13	24,655	3,287	3,140	425,859	7,870	772	725	66,212	21,303	679	655	42,542	53,910	5,388	4,520	534,613	
Nov-13	24,596	4,471	3,635	537,058	7,913	1,001	942	96,784	21,325	908	895	66,241	53,834	6,380	5,472	700,083	
Dec-13	24,503	3,495	2,792	413,341	7,902	822	778	84,727	21,301	816	799	50,373	53,706	5,133	4,369	548,441	
Jan-14	24,385	5,027	3,827	569,406	7,894	1,140	1,079	120,446	21,301	1,173	1,147	78,135	53,580	7,340	6,053	767,987	
Feb-14	24,355	4,543	3,662	476,832	7,904	1,150	1,071	104,604	21,298	1,057	1,042	71,613	53,557	6,750	5,775	653,049	
Mar-14	24,167	4,731	3,888	472,002	7,895	1,304	1,234	133,759	21,314	1,136	1,124	65,946	53,376	7,171	6,246	671,707	
Apr-14	24,150	4,130	3,191	449,776	7,912	1,085	1,009	101,344	21,367	858	842	56,221	53,429	6,073	5,042	607,341	
May-14	24,141	4,317	3,313	413,810	7,898	1,038	930	84,627	21,394	965	945	51,721	53,433	6,320	5,188	550,158	
Jun-14	24,121	3,145	2,358	341,234	7,895	713	598	60,870	21,421	586	565	23,357	53,437	4,444	3,521	425,461	
Jul-14	24,031	3,212	2,352	371,125	7,820	656	548	65,855	21,434	581	565	22,146	53,285	4,449	3,465	459,126	
Aug-14	24,025	3,005	2,337	326,987	7,803	595	513	52,099	21,454	466	453	20,611	53,282	4,066	3,303	399,697	
Sep-14	23,624	3,313	2,627	369,676	7,546	725	656	70,751	21,096	560	542	40,541	52,266	4,598	3,825	480,968	
Oct-14	23,388	4,347	3,547	484,908	7,464	934	846	99,250	20,918	764	754	51,363	51,770	6,045	5,147	635,521	
Nov-14	23,395	4,446	3,743	505,093	7,466	1,015	965	102,503	20,928	1,059	1,042	78,391	51,789	6,520	5,750	685,987	
Dec-14	23,382	3,283	2,611	405,845	7,435	865	810	107,910	20,905	983	975	76,136	51,722	5,131	4,396	589,891	
Jan-15	23,033	4,836	3,757	553,430	7,338	1,210	1,134	111,472	20,855	1,247	1,230	87,497	51,226	7,293	6,121	752,399	
Feb-15	22,964	4,625	3,710	493,457	7,310	1,057	988	106,456	20,836	1,157	1,140	80,033	51,110	6,839	5,838	679,946	
Mar-15	22,928	4,604	3,755	495,294	7,291	1,251	1,190	130,837	20,854	1,094	1,078	87,973	51,073	6,949	6,023	714,104	
Apr-15	22,924	4,896	3,793	506,179	7,292	1,183	1,090	114,643	20,876	957	930	75,594	51,092	7,036	5,813	696,416	
May-15	22,922	3,422	2,621	360,486	7,280	774	700	74,122	20,889	779	764	58,503	51,091	4,975	4,085	493,111	
Jun-15	22,962	3,173	2,310	377,583	7,274	701	632	65,141	20,912	712	691	37,743	51,148	4,586	3,633	480,467	
Jul-15	23,009	3,752	2,718	432,079	7,268	831	721	79,922	20,942	730	701	42,232	51,219	5,313	4,140	554,233	
Aug-15	22,993	3,173	2,455	354,791	7,218	629	573	54,965	20,905	558	538	30,507	51,116	4,360	3,566	440,263	
Sep-15	23,023	3,456	2,703	379,855	7,212	730	659	69,595	20,918	517	501	27,355	51,153	4,703	3,863	476,805	

Table 6: TB incidents and animals slaughtered – Great Britain

	England			0.000.0	Scotl	land			Wa	iles		Great Britain (5)				
			NHI of		Herds not		NHI of		Herds not				Herds not			
	Herds not		which:		officially TB		which:		officially TB		NHI of which:		officially TB		NHI of which:	
	officially TB		officially TB		free at the		officially TB		free at the		officially TB		free at the		officially TB	
	free at the end		free herd		end of the		free herd		end of the		free herd		end of the		free herd	
	of the period	New herd	status		period due to	New herd	status		period due to	New herd	status		period due to	New herd	status	
	due to a bovine	incidents		Total animals	'	incidents		Total animals	a bovine TB	incidents		Total animals	a bovine TB	incidents		Total animals
	TB incident (1)	(NHI) (2)		slaughtered (4)	incident	(NHI)	(OTFW)	slaughtered	incident	(NHI)	(OTFW)	slaughtered	incident	(NHI)	(OTFW)	
2005	1,799	2,895	1,865	22,847	14	37	13	194	490	732	430	6,783	2,305	3,665	2,308	
2006	1,778	2,719	1,808	16,393	24	44	19	224	567	767	477	5,903	2,369	3,531	2,304	
2007	2,206	3,196	2,042	18,916	22	58	22	515	686	935	485	7,963	2,914	4,190	2,549	
2008	2,832	3,766	2,448	27,815	25	47	18	460	920	1,198	627	11,400	3,777	5,012	3,094	
2009	2,484	3,363	2,283	26,668	20	49	11	357	723	1,186	553	11,671	3,228	4,600	2,848	38,696
2010	2,598	3,632	2,483	24,600	16	45	13	160	711	1,039	513	7,618	3,325	4,721	3,011	32,378
2011	2,982	3,801	2,599	26,467	9	43	8	140	794	1,046	502	8,068	3,804	4,913	3,116	34,675
2012	3,242	3,916	2,867	28,286	26	54	12	418	921	1,108	563	9,289	4,220	5,112	3,452	37,993
2013	3,102	3,888	2,806	26,594	20	28	10	95	635	876	447	6,102	3,793	4,813	3,264	32,791
2014	2,935	3,801	2,786	26,413	28	46	17	233	608	854	522	6,379	3,608	4,714	3,327	33,025
12 months to end Sept 14	2,615	3,829	2,784	25,865	28	45	17	273	567	819	483	5,911	3,247	4,710	3,287	32,049
12 months to end Sept 15	2,803	3,856	2,857	27,334	26	40	12	122	615	889	524	7,380	3,483	4,794	3,394	
Jan-13	3,341	393	267	2,390	30	4	0	4	922	95	44	819	4,326	495	311	3,213
Feb-13	3,299	316	238	2,512	24	0	0		905	85	44	596	4,259	402	282	
Mar-13	3,369	383	276	2,476	20	4	1	3	883	97	39	514	4,305	486	316	
Apr-13	3,262	341	248	2,122	20	3	0	2	848	80	40	614	4,161	426	288	2,738
May-13	3,160	314	221	2,621	18	2	1	3	809	85	44	636	4,019	402	266	3,260
Jun-13	3,077	252	160	1,694	18	2	1	2	790	67	31	348	3,919	325	192	2,044
Jul-13	2,957	225	154	2,209	16	1	1	7	721	45	19	507	3,729	273	174	,
Aug-13	2,926	272	197	2,085	18	4	2		689	51	25	448	3,667	327	224	
Sep-13	2,885	287	222	1,786	17	1	0	9	668	61	32	325	3,605	350	254	,
Oct-13	2,933	389 423	286 316	2,305 2,321	16 17	2	2	31 24	665 662	79 76	52 45	531 417	3,648	471 504	340 363	,
Nov-13 Dec-13	3,078 3,102	293	221	2,321	20	3	1	24	635	55	32	347	3,793 3,793	352	254	
Jan-14	3,177	428	312	2,299	20	3	2		657	101	55	635	3,891	534	369	
Feb-14	3,173	356	251	2,159	24	4	1	8	665	68	37	845	3,898	430	290	
Mar-14	3,164	343	245	2,425	35	13	6	20	666	79	45	472	3,901	437	296	
Apr-14	3,025	290	191	2,306	36	2	0	57	651	69	34	518	3,750	364	226	
May-14	2,907	283	184	2,180	36	5	1	26	659	84	44	543	3,640	372	229	2,749
Jun-14	2,802	210	152	2,184	35	3	2	47	634	51	31	427	3,507	264	185	2,658
Jul-14	2,711	261	204	1,819	31	2	0	33	627	58	40	476	3,406	322	244	2,328
Aug-14	2,616	255	196	1,683	28	1	0	2	592	40	26	264	3,274	297	222	
Sep-14	2,615	298	226	2,111	28	5	1	13	567	59	42	436	3,247	363	269	
Oct-14	2,727	372	287	2,296	25	1	0		583	98	68	627	3,371	471	355	
Nov-14	2,882	411	305	2,201	25	3	2	5	606	86	56	530	3,550	501	363	
Dec-14	2,935	294	233	2,750	28	4	2	6	608	61	44	606	3,608	359	279	,
Jan-15	3,042	380	274	2,339	27	3	0	_	659	109	71	655	3,764	493	345	-,
Feb-15	3,073	347	259	2,300	29	6	1	15	689	87	52	654	3,828	441	312	
Mar-15	3,095	366	273	2,483	31	4	1	16	715	85	54	536	3,878	455	328	
Apr-15	3,049	324	247	1,995	25	3	1	6	727	83	37	581	3,838	411	285	
May-15	2,970	265	183	2,109	24	1	0		727	65	30	746	3,758	331	213	
Jun-15	2,880	258	183	2,071	23	2	0	5	707	50 67	24	537	3,648	312	208	
Jul-15	2,861	305	214	2,354	25	6	1 2	8	682	67 57	36	701 570	3,607	379	251	
Aug-15	2,874 2,803	256 278	190 209	2,092 2,344	28 26	5 2	2	3 38	661 615	57 41	31 21	570 637	3,601	319 322	223	
Sep-15	2,803	2/8	209	2,344	26			38	015	41	21	03/	3,483	344	232	3,019

Table 7: TB incidents and animals slaughtered – England

	High risk area				Lingianic	Edge	area			Low ris	k area		England			
			NHI of		Herds not		NHI of		Herds not	2011.10			Herds not	8		
	Herds not		which:		officially TB		which:		officially TB	,	NHI of which:		officially TB		NHI of which:	
	officially TB		officially TB		free at the		officially TB		free at the	'	officially TB		free at the		officially TB	
	free at the end		free herd		end of the		free herd		end of the		free herd		end of the		free herd	
	of the period	New herd	status		period due to	New herd	status		period due to	New herd	status		period due to	New herd	status	
	due to a bovine	incidents	withdrawn	Total animals	•	incidents	withdrawn	Total animals	a bovine TB	incidents		Total animals	a bovine TB	incidents		Total animals
	TB incident (1)	(NHI) (2)		slaughtered (4)	incident	(NHI)	(OTFW)	slaughtered	incident	(NHI)	(OTFW)		incident	(NHI)	(OTFW)	
2005	1,722	2,696	1,763	22,040	34	101	53	354	43	98	49	453	1,799	2,895	1,865	22,847
2006	1,681	2,492	1,697	15,757	62	136	73	356	35	91	38	280	1,778	2,719	1,808	16,393
2007	2,114	2,980	1,957	17,651	55	131	51	733	37	85	34	532	2,206	3,196	2,042	18,916
2008	2,687	3,495	2,346	25,812	105	181	67	1,385	40	90	35	618	2,832	3,766	2,448	27,815
2009	2,344	3,074	2,172		97	200	71	1,214	43	89	40	728	2,484	3,363	2,283	26,668
2010	2,441	3,274	2,342	22,971	102	226	95	1,016	55	132	46	613	2,598	3,632	2,483	24,600
2011	2,786	3,465	2,458	24,938	149	238	111	1,070	47	98	30 39	459	2,982	3,801	2,599	26,467
2012 2013	3,029 2,850	3,580 3,479	2,697 2,609	26,876	155 195	233 300	131 158	1,199 1,518	58 57	103 109	39	211 460	3,242	3,916 3,888	2,867 2,806	28,286 26,594
2013	2,684	3,479	2,556	24,616 22,706	207	351	194	3,024	44	109	36	683	3,102 2,935	3,801	2,806	26,394
2014	2,004	3,342	2,330	22,700	20,	331	154	3,024		100	30	003	2,333	3,001	2,700	20,413
12 months to end Sept 14	2,341	3,349	2,556	22,417	227	370	198	2,777	47	110	30	671	2,615	3,829	2,784	25,865
12 months to end Sept 15	2,511	3,392	2,646	23,835	229	324	167	2,933	63	140	44	566	2,803	3,856	2,857	27,334
Jan-13	3,110	355	250	2,232	162	23	11	112	69	15	6	46	3,341	393	267	2,390
Feb-13	3,068	285	222	2,340	168	24	12	114	63	7	4	58	3,299	316	238	2,512
Mar-13	3,124	345	262	2,273	180	27	9	123	65	11	5	80	3,369	383	276	2,476
Apr-13	3,013	296	227	2,015	182	32	16	86	67	13	5	21	3,262	341	248	2,122
May-13	2,912 2,820	286	209 137	2,451	172 182	16 36	8 19	146 89	76 75	12 9	4	24 50	3,160	314	221 160	2,621
Jun-13 Jul-13	2,820	207 201	141	1,555 2,049	180	19	19	143	65	5	2	17	3,077 2,957	252 225	154	1,694 2,209
Aug-13	2,693	246	181	1,959	173	21	14	90	60	5	2	36	2,926	272	197	2,085
Sep-13	2,646	252	198	1,646	177	24	18	101	62	11	6	39	2,885	287	222	1,786
Oct-13	2,705	361	274	2,070	168	19	11	202	60	9	1	33	2,933	389	286	2,305
Nov-13	2,837	380	296	2,087	182	35	20	200	59	8	0	34	3,078	423	316	2,321
Dec-13	2,850	265	212	1,939	195	24	9	112	57	4	0	22	3,102	293	221	2,073
Jan-14	2,912	375	283	2,054	217	42	26	205	48	11	3	40	3,177	428	312	2,299
Feb-14	2,882	296	223	1,908	243	49	25	215	48	11	3	36	3,173	356	251	2,159
Mar-14	2,830	279	206	1,977	274	48	31	385	60	16	8	63	3,164	343	245	2,425
Apr-14	2,675	245	175	1,875	296	39	14	384	54	6	2	47	3,025	290	191	2,306
May-14	2,556	235	169	1,679	292	33	13	310	59	15	2	191	2,907	283	184	2,180
Jun-14	2,465	183	139	1,789	278	19	10		59	8	3	106	2,802	210	152	2,184
Jul-14	2,404 2,335	239 233	190 183	1,596 1,554	257 234	18 15	13 9	183 117	50 47	7	1 4	40 12	2,711 2,616	261 255	204 196	1,819 1,683
Aug-14 Sep-14	2,333	258	206	1,889	234	29	17	175	47	11	3	47	2,615	298	226	2,111
Oct-14	2,466	346	273	2,078	213	20	13	196	48	6	1	22	2,727	372	287	2,296
Nov-14	2,627	382	288	1,909	210	21	11	259	45	8	6	33	2,882	411	305	2,201
Dec-14	2,684	271	221	2,398	207	18	12	306	44	5	0	46	2,935	294	233	2,750
Jan-15	2,770	323	254	2,078	217	37	15	218	55	20	5	43	3,042	380	274	2,339
Feb-15	2,791	299	240	1,918	221	33	15	344	61	15	4	38	3,073	347	259	2,300
Mar-15	2,789	313	243	2,170	236	33	21	270	70	20	9	43	3,095	366	273	2,483
Apr-15	2,735	278	227	1,652	242	35	16		72	11	4	98	3,049	324	247	1,995
May-15	2,655	221	167	1,769	237	24	12		78	20	4	73	2,970	265	183	2,109
Jun-15	2,572	223	165	1,767	235	29	16		73	6	2	80	2,880	258	183	2,071
Jul-15	2,555	261	200	2,069	239	32	11	245	67	12	3	40	2,861	305	214	2,354
Aug-15	2,587	237	183	1,933	221	13	6	137	66	6	1	22	2,874	256	190	2,092
Sep-15	2,511	238	185	2,094	229	29	19	222	63	11	5	28	2,803	278	209	2,344

#### Notes (applicable to all geographical areas)

#### Herd and test numbers

- (1) The number of herds registered on the APHA's Sam (computer) system. Occasionally there are changes to the number of herds registered on Sam. This is the result of routine or ad hoc data cleansing.
- (2) Herds for which tuberculin skin testing is carried out on at least one animal during the period shown. Does not include Gamma tests.
- (3) Herds for which tuberculin skin testing is carried out on at least one animal during the period shown and when the herd is OTF. Does not include Gamma tests.
- (4) Count of the number of tests on cattle. An individual animal could be tested more than once in each time period. Includes a minority of interferon-gamma blood tests.
- (5) For some statistics the region or disease status is unknown. For this reason the data shown for England, Scotland and Wales will not sum to the GB figure.

#### TB incidents and animals slaughtered

- (1) Herds which were not officially TB-free (i.e. herds with an open breakdown with OTF status suspended or withdrawn) due to a TB incident, at the end of the period shown (non OTF herds).
- (2) Herds which were previously OTF but either had cattle that reacted to a tuberculin test or had a tuberculous animal disclosed by routine meat inspection at slaughter, during the period shown.
- (3) New herd incidents where OTF status was withdrawn from the herd.
- (4) Reactors slaughtered + inconclusive reactors slaughtered + direct contacts slaughtered.
- (5) For some statistics the region or disease status is unknown. For this reason the data shown for England, Scotland and Wales will not sum to the GB figure.

The statistics are a snapshot of the position on the date on which the data were extracted. The statistics from January 2013 are revised monthly. In addition, data for the status of incidents (OTFW, OTFS or unclassified) from May 2011 is provisional. This is due to a higher than usual number of unclassified incidents during the transition to APHA's current computer system Sam. This affects only a small number of records and work is underway to resolve the issue.

Figure 7: Comparison of the new and old measures of herd incidence of bovine TB in GB, since 1996

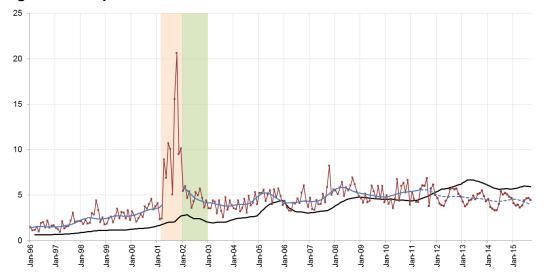
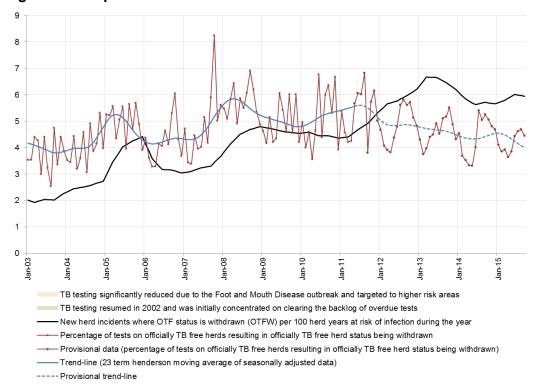


Figure 8: Comparison of the new and old measures of herd incidence of bovine TB in GB, since 2003



These charts present two ways of measuring herd incidence:

- The previous herd incidence measure presented incidents where OTF status was withdrawn as a percentage of tests on OTF herds.
- The new incidence rate is OTFW incidents per 100 herd years at risk

The two measures follow a fairly similar pattern over time with a gradual increase from the beginning of the time series. The previous measure showed a general decline from around 2012, driven largely by an increase in the amount of testing carried out in herds which resulted in an artificial decrease in herd incidence. The new measure appears to be showing a decline since mid-2013. The increase in the new measure relative to the previous one from 2011 onwards is likely to be the result of the inclusion of Welsh herds where OTF status can be withdrawn for epidemiological reasons in the absence of confirmation of TB via post-mortem examination or bacteriological culture, described above.

#### What is bovine tuberculosis?

Bovine tuberculosis (bTB) is a chronic infectious disease of cattle<sup>2</sup>. The risk bTB poses to human health is low, largely due to milk pasteurisation. The disease is detected either on farms (through mandatory skin tests<sup>3</sup> of cattle herds for bTB at regular intervals) and at abattoirs (through post-mortem meat inspection of cattle carcases).

## What are the impacts of bTB?

Bovine TB presents serious challenges to the food and farming industries and has economic and social impacts. The economic costs of a bTB breakdown<sup>4</sup> are shared by farmers and government; in 2012 the estimated average cost of a confirmed herd breakdown in high risk areas of England was £14,000 to farmers and £20,000 to government<sup>5</sup>. Costs are incurred for a number of reasons:

- Cattle which are found (or are highly likely) to have bTB are slaughtered. This loses the farmer the value of the animal and its output. Government pays farmers compensation for slaughtered animals which is based on the market value of cattle.
- There are costs associated with testing animals for bTB. Farmers incur costs from gathering animals
  together, such as paying workers for their time, and government pays the vets' fees for carrying out
  tests on the herd (and in the event of a breakdown on herds in neighbouring farms).
- When an animal in a herd tests positive for the disease, the whole herd is put under movement
  restrictions until all the remaining animals are tested repeatedly with negative results. This presents
  costs to farmers, for example because they are unable to move their cattle to market or buy in
  replacements for animals that are slaughtered.

Other impacts of high bTB levels can include:

- Restrictions on trade in cattle within Europe<sup>6</sup>
- Significant stress amongst famors, their families and local communities<sup>7</sup>
- The infection spilling over to domestic and wild animals 8.

## Why monitor statistics about bTB?

**Legal requirements:** EU Member States are legally required to have accelerated bTB eradication plans in place in order to achieve officially TB free (OTF) status<sup>9</sup>. Defra and Welsh Government policy is to achieve

<sup>&</sup>lt;sup>2</sup> bTB is caused by the bacterium *Mycobacterium bovis* (*M. bovis*). Cattle are the natural host of the bacterium, but many other species, including wildlife such as badgers and (less commonly) deer, are also susceptible to *M. bovis*, can develop TB and transmit the infection to other species.

<sup>3</sup> the tuberculin skin test: if tuberculin (a purified sterile cocktail of proteins derived from *M. bovis* cultures) is injected into the skin of an animal infected with *M. bovis*, this will cause a localised allergic reaction characterised by temporary swelling of the skin, which is measured 72hrs after the injection. The principle is very similar to the skin tests for TB in humans.

<sup>&</sup>lt;sup>4</sup> A *breakdown* is the term used to describe the occurrence in a herd of at least one animal with a positive reaction to the skin test, or the identification of *M. bovis* in an animal with TB lesions detected at routine slaughter. The affected herd is then placed under restrictions and loses its Officially TB Free (OTF) status.

<sup>&</sup>lt;sup>5</sup> Economic analysis based on <u>research report SE3112 for Defra, 2004</u>

<sup>&</sup>lt;sup>6</sup> Because the disease undermines the effective operation of the single market – see the <u>EU Animal Health Strategy</u>

<sup>&</sup>lt;sup>7</sup> See for example <u>research report SE3120 for Defra, 2008</u>

<sup>&</sup>lt;sup>8</sup> For example Broughan, J. M., Downs, S. H., Crawshaw, T. R., Upton, P. A., Brewer, J. & Clifto-Hadley, R. S. (2013) *Mycobacterium bovis* infections in domesticated non-bovine mammalian species. Part 1: review of epidemiology and laboratory submissions in Great Britain 2004-2010. *Veterinary Journal* 198, 346-35. See also <a href="http://webarchive.nationalarchives.gov.uk/20140405112558/http://www.defra.gov.uk/ahvla-en/publication/pubsurvreport-tb/">http://webarchive.nationalarchives.gov.uk/20140405112558/http://www.defra.gov.uk/ahvla-en/publication/pubsurvreport-tb/</a>

survreport-tb/
9 "OTF Status" takes its meaning from European law: for a region or Member State of the EU to be considered to be OTF the annual incidence of herds with confirmed *M. bovis* infection must not have exceeded 0.1% and at least 99.9% of the herds within it must have been free from bTB at the end of the year for at least six consecutive years.

OTF status for the whole country by 2038, while Scotland achieved OTF status in September 2009. bTB statistics are used in England and Wales to measure progress towards this target, and to support the annual case for Scotland to retain its OTF status, as the qualification is based on herd incidence.

**Monitoring policy effectiveness:** Statistics on the incidence of bTB in cattle herds and the number of cattle slaughtered as a result of bTB are used by policymakers to monitor the spread and concentration of the disease and to inform decisions around the potential approaches to controlling it. Existing controls include routine testing in cattle based on the disease incidence (or risk) in a given area, restricting movements of cattle from herds where an animal has tested positive for the disease and addressing the problem of disease spread through wildlife (principally badgers).

## Factors affecting statistics on incidence of bTB in cattle herds

Variation in the monthly statistics can occur for a number of reasons, including:

- **Disease**: an increase in the trend can be the result of a higher proportion of herds experiencing a breakdown because of an increase in the underlying incidence of bTB.
- Surveillance policy (including the frequency of testing): Cattle herds in high risk areas <sup>10</sup> are tested annually and cattle herds in low risk areas are usually tested every four years. In Scotland, which is OTF, a growing percentage of herds are exempt from routine testing. If cattle herds in a low prevalence region are tested more frequently than every four years, the increase in the number of bTB tests will not necessarily be followed by a similar increase in the detection of infected cattle and so this may result in a decline in the incidence rate.
- Seasonality: more animals are tested when they are housed, during winter months, compared with when they are grazing outdoors in summer months. This is simply because it is easier to gather and test the cattle when they are already contained within a building. The blue trend line in Figures 1 and 2 account for this by presenting seasonally adjusted data.
- Number of testing days in a given month: tests tend to be carried out at the beginning of the working
  week and the results collected and entered into the data system towards the end of the week. Months
  containing five Fridays may therefore have more positive test results than months containing four.

An extreme example of the impact of testing on the incidence rate can be seen in the statistics for 2001, when bTB testing was significantly reduced for most of the year due to the outbreak of Foot and Mouth Disease but new bTB breakdowns continued to be detected through disease surveillance in abattoirs. This led to an unusually high incidence rate for 2001 and 2002, when effectively two years' worth of breakdowns were identified in one year when the normal testing regime resumed.

### Surveillance policy in GB

These statistics are presented for GB, but the bTB surveillance and control policy – including how frequently animals are tested for bTB – varies between England, Wales and Scotland and has changed over time.

### Timeline:

• **1990s**: most herds in GB tested every four years and background testing intervals determined on a parish basis. Herds in parishes with a high incidence of bTB breakdowns (in the South West of

<sup>&</sup>lt;sup>10</sup> South West, West Midlands and East Sussex, where the majority of TB cases are found and where the prevalence (probability) of TB-infected cattle and badgers is relatively high.

England and in parts of Wales) are tested on an annual or biennial basis, with a smaller number of three-yearly testing herds.

- 2004 to 2010: the proportion of parishes and herds in England and Wales with annual testing
  increases gradually as the disease spread, with a corresponding decrease in the proportion of
  parishes with four-yearly testing.
- October 2009: the European Commission designates Scotland as an officially bTB free region of the UK.
- January 2010: In England, a core annual testing area is established, spanning entire counties in the South West and West Midlands (the 'high risk area') and surrounded by a 'buffer' of two-yearly testing parishes. Most of the rest of England remains on background four-year testing. The Welsh Government puts all cattle herds in Wales on annual bTB testing (with herds in the small Intensive Action Area of West Wales put on 6-monthly bTB testing).
- **2011 and 2012**: further expansion of the annual testing area in England to the east and north.
- January 2013: herd testing intervals are determined on a county basis and England is split into
  annual testing and four-yearly testing counties. Annual testing of herds is extended to all the counties
  at the edge of the high risk area (more detail below). Three- and two-yearly testing is abolished.
- January 2015: all cattle herds in the edge area of Cheshire are put on six-monthly testing.

### Current differences in surveillance policy in GB

- England is divided into two cattle bTB testing frequency areas that broadly reflect the geographically clustered nature of the disease. The majority of bTB breakdowns are found in the High Risk Area and the Edge Area (counties of the South West, West Midlands and East Sussex). These herds are tested for bTB annually (or every six months in the Edge Area of Cheshire) and represent nearly 60% of all herds in England. In the rest of England most herds are tested every four years. Herds that have a high risk of contracting bTB or present a potential public health risk (e.g. producer-retailers of unpasteurised milk) are tested annually regardless of their location.
- All herds in **Wales** are tested annually.
- Scotland has in place a risk-based routine herd testing policy. This targets testing at higher risk
  herds. Around 45 per cent of herds are considered low risk herds and are exempt from routine
  testing. These are herds which have 20 or fewer animals, minimal import of animals from high risk
  areas and send a high proportion of animals to slaughter. Herds that are not exempt are tested every
  four years.

More information on bovine TB can be found at:

England: https://www.gov.uk/government/policies/reducing-bovine-tuberculosis

Wales: http://gov.wales/topics/environmentcountryside/ahw/disease/bovinetuberculosis/?lang=en

Scotland: <a href="http://www.scotland.gov.uk/Topics/farmingrural/Agriculture/animal-welfare/Diseases/disease/tuberculosis">http://www.scotland.gov.uk/Topics/farmingrural/Agriculture/animal-welfare/Diseases/disease/tuberculosis</a>

# Methodology

For a description of the data sources and methodology used in the calculation of the TB statistics, together with notes on data revisions policy etc., please refer to the 'Background and Methodology' annex document at <a href="https://www.gov.uk/government/statistics/data-and-methodology">https://www.gov.uk/government/statistics/data-and-methodology</a>.

### **Further Information**

This statistical notice and a wide range of other statistics are available on the internet at: <a href="https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics">https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs/about/statistics</a>