



Quarterly publication of National Statistics on the incidence and prevalence of tuberculosis (TB) in Cattle in Great Britain – to end June 2017

These statistics were released on Wednesday 20 September 2017.

The next quarterly notice is to be updated on Wednesday 13 December 2017.

The underlying monthly datasets will next be updated on Wednesday 18 October 2017.

Key points

- In England overall, the herd incidence rate and herd prevalence have increased between the last two 12-month periods. ([table 1](#))
- In Scotland, which has had officially TB-free (OTF) status since 2009, herd incidence and herd prevalence remain very low and stable.
- In Wales, herd incidence and herd prevalence have decreased on the previous 12 months.
- Total animals slaughtered due to a TB incident in England in the 12 months to June 2017 increased 4% on the previous 12 months to 30,980. In Wales the number slaughtered was 9,693, an increase of 3%. ([table 3](#))

Table 1: Herd incidence and herd prevalence

	Herd incidence: New herd incidents per 100 herd years at risk		Herd prevalence: Disease restricted herds as a percentage of registered herds at end	
	12 months to end June 16	12 months to end June 17	12 months to end June 16	12 months to end June 17
England	10.1	10.7	5.7	6.0
High risk area	18.4	18.8	11.1	11.7
Edge area	6.3	6.8	4.1	4.3
Low risk area	1.1	0.9	0.3	0.3
Scotland	0.6	0.7	0.2	0.2
Wales	7.2	7.0	5.5	5.1

The headline measure of **herd Incidence** is the rate of new herd incidents per 100 herd years at risk. The rate is based around the total amount of time that herds tested were unrestricted and at risk of infection since the end of their last TB incident or negative herd test, rather than the total number of tests carried out on those herds. The rate in the high risk area of England is 18.8 in the 12 months to end of June 2017, which means for every 100 unrestricted herds undergoing bTB surveillance in that period APHA detected almost 19 new breakdowns.

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.

Herd prevalence - the percentage of herds which were not Officially TB Free (OTF) due to a TB incident - at end June 2017 compared to June 2016:

- increased in the high risk area (HRA) and Edge Area of England, and
- decreased in the low risk area (LRA) and Wales.

The number of new TB herd incidents between the 12 months ending June 2017 and the previous 12 month period:

- decreased in HRA, LRA, Wales and Scotland.
- increased marginally in the Edge Area of England ([table 2](#)).

Table 2: New herd incidents and non-OTF herds

	New herd incidents			Herds not officially TB free at the end of the period due to a bovine TB incident (non-OTF herds)		
	12 months to end June 16	12 months to end June 17	Year-on-year change	12 months to end June 16	12 months to end June 17	Year-on-year change
England	3,911	3,856	-1%	2,892	3,063	6%
High risk area	3,374	3,348	-1%	2,533	2,690	6%
Edge area	386	391	1%	292	311	7%
Low risk area	151	117	-23%	67	62	-7%
Scotland	47	33	-30%	29	25	-14%
Wales	742	729	-2%	635	608	-4%

In Scotland the number of non-OTF herds is very low and approximately 57% of cattle herds are now exempt from routine TB surveillance testing. 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 herd TB incidents where officially TB free (OTF) status is withdrawn (OTFW) following confirmation of TB by post-mortem examination or laboratory culture of tissue samples.

Table 2a: OTFW new herd incidents and OTFW herd incidence

	New herd incidents where OTF status is withdrawn (OTFW)			New herd incidents OTFW per 100 herd years at risk	
	12 months to end June 16	12 months to end June 17	Year-on-year change	12 months to end June 16	12 months to end June 17
England	2,710	2,559	-6%	7.1	7.2
High risk area	2,478	2,312	-7%	13.6	13.1
Edge area	187	209	12%	3.1	3.7
Low risk area	45	38	-16%	0.3	0.3
Scotland	11	11	0%	0.1	0.2
Wales	403	393	-2%	6.2	6.2

Figures for Wales do not include incidents where OTF status has been withdrawn for epidemiological reasons only. These are currently included within the “officially TB free herd status suspended” figures.

In the low risk area:

- During the 12 months ending June 2017 there were 38 OTFW incidents compared to 45 in the previous 12 months.

In Scotland:

- There were 11 OTFW incidents in the period ending June 2017, the same number as in the previous 12 months.
- The OTFW herd incidence rate of breakdowns per 100 herd-years at risk was 0.2 in the 12 months to end June 2017 and 0.1 in the previous 12 month period.

¹ See for example: veterinaryrecord.bmj.com/content/vetrec/177/10/258.summary.pdf and veterinaryrecord.bmj.com/content/177/10/258

Table 3: Total animals slaughtered*

	12 months to end June 16	12 months to end June 17	Year-on-year change
England	29,803	30,980	4%
High risk area	26,183	26,952	3%
Edge area	2,949	3,432	16%
Low risk area	671	596	-11%
Scotland	203	150	-26%
Wales	9,444	9,693	3%

* Includes test reactors, direct contacts and inconclusive reactors (Wales only since April 2017).

There continue to be increases in the number of cattle slaughtered due to a TB incident in all areas apart from the low risk area of England and Scotland. As previously reported, much of the rise number cattle slaughtered in England and Wales is attributable to changes in the testing policy for **non-OTF herds**, in particular:

- In herds undergoing recurrent or persistent incidents there is increased use of the **interferon-gamma blood test**. This is more sensitive than the standard skin test and discloses more reactors per breakdown.
- Since April 2016 all herds with a TB incident in the HRA of England, irrespective of post-mortem and laboratory findings, must undergo **two successive skin tests at severe interpretation** in order to regain their OTF status (the same policy was introduced in the Edge Area in December 2013). Severe interpretation of skin test results is intended to improve the probability that all infected animals in a herd are removed before incidents are closed and restrictions lifted. See also [Trends in herd tests](#)

A paper exploring reasons for increases in animals slaughtered in Wales has been published on the Welsh Government website at:

gov.wales/docs/drah/publications/170821-increase-in-cattle-slaughtered-in-wales-en.pdf.

Notes on the data:

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 was extracted. These statistics may be subject to small revisions until all test results are available. In particular, figures from 2015 onwards will be subject to further revision as test and incident records are completed.

Detailed guidance on how these measures are calculated at

www.gov.uk/government/statistics/data-and-methodology.

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The charts published in this statistical notice, together with the equivalent figures from January 1996 onwards, are also available in spreadsheet (ODS) format at www.gov.uk/government/collections/bovine-tb

Herd incidence

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

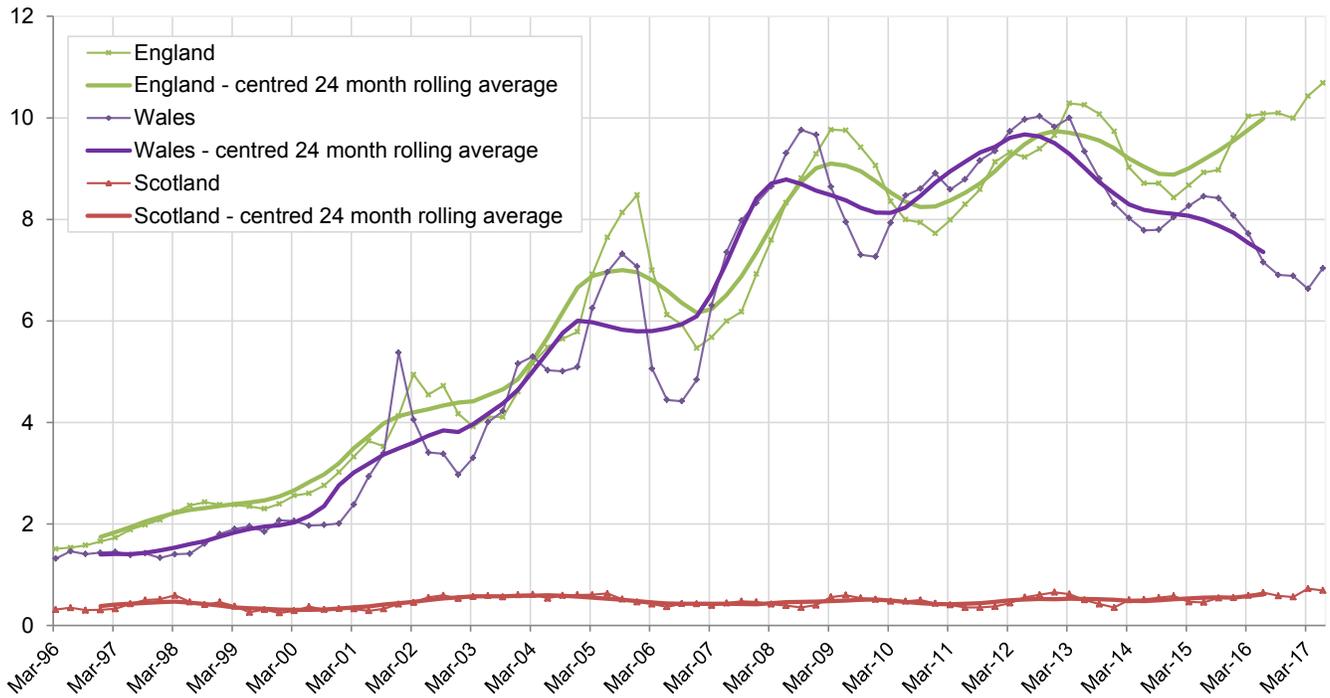


Figure 2: New herd incidents per 100 herd years at risk of infection during the year – England, per quarter

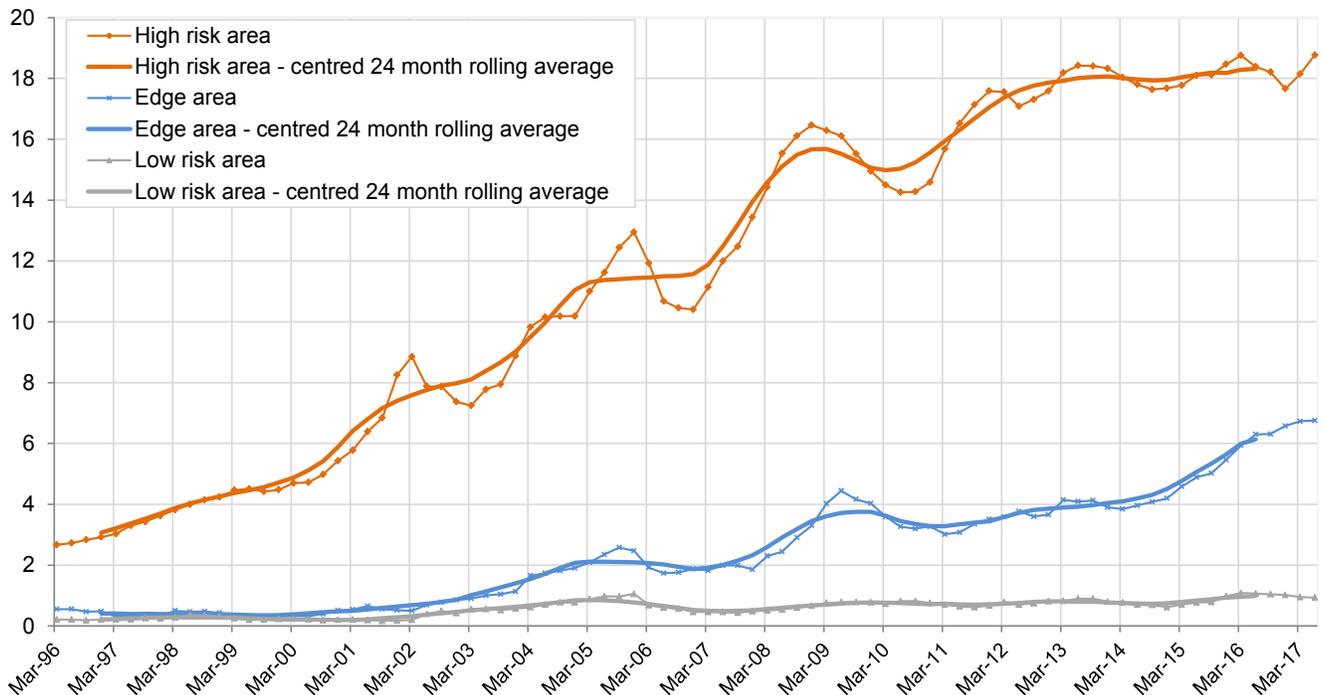
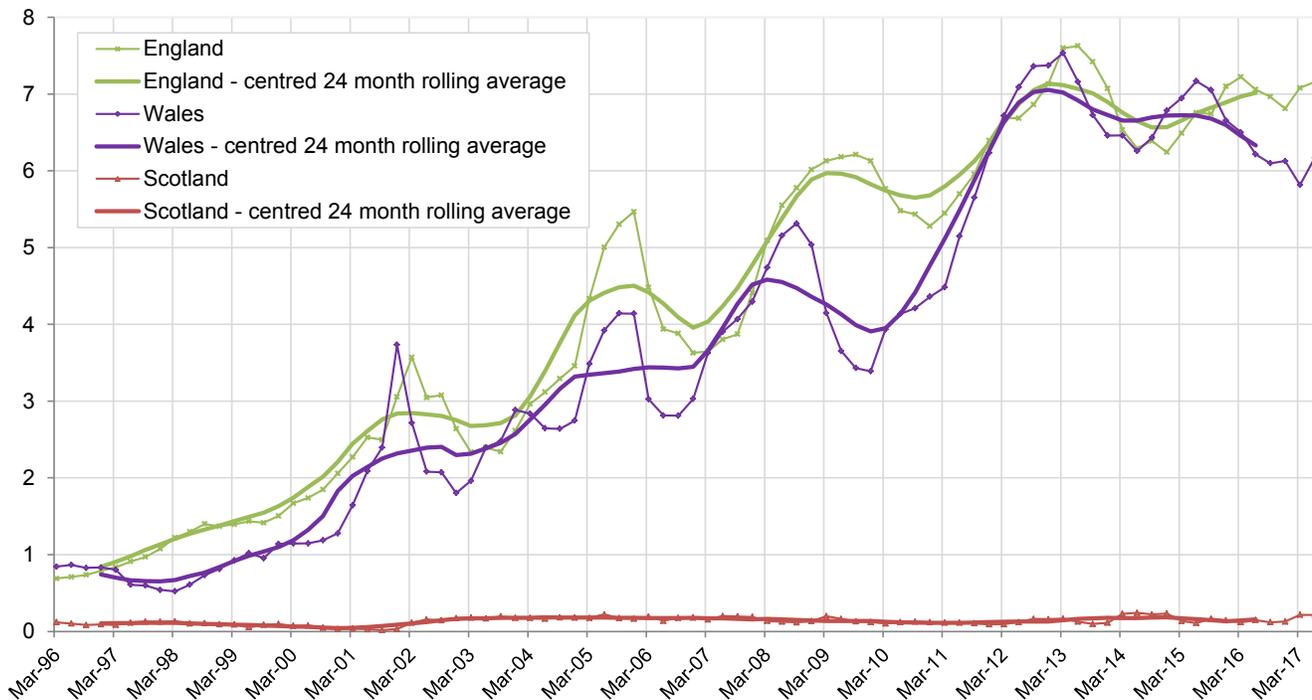
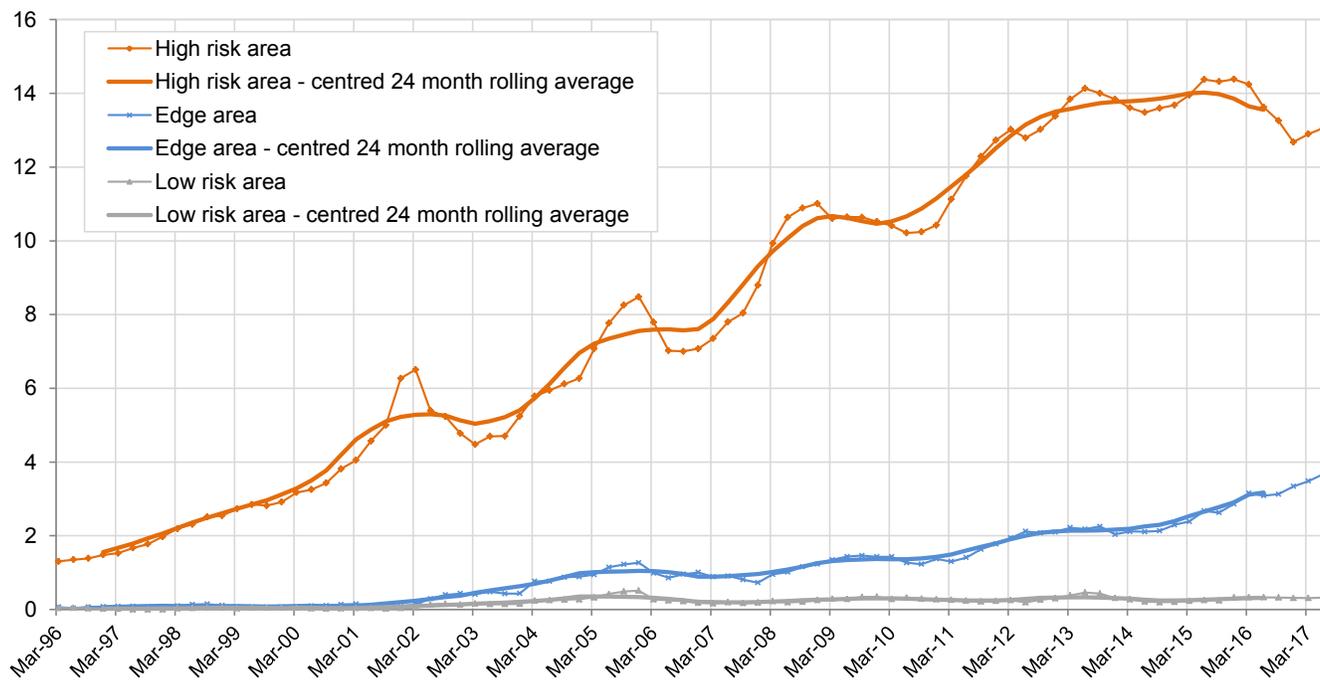


Figure 3: New herd incidents with officially TB-free status withdrawn (OTFW) per 100 herd years at risk of infection during the year – GB, per quarter



NOTE: from 2011, the figures presented above for OTFW incidents per 100 herd years at risk in Wales are not directly comparable to England or Scotland. This is due to the inclusion of some incidents in Wales that have their OTF status withdrawn for epidemiological reasons only, in the absence of post-mortem confirmation. The figures presented here are not comparable with those for Wales in Table 6 of this notice.

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



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

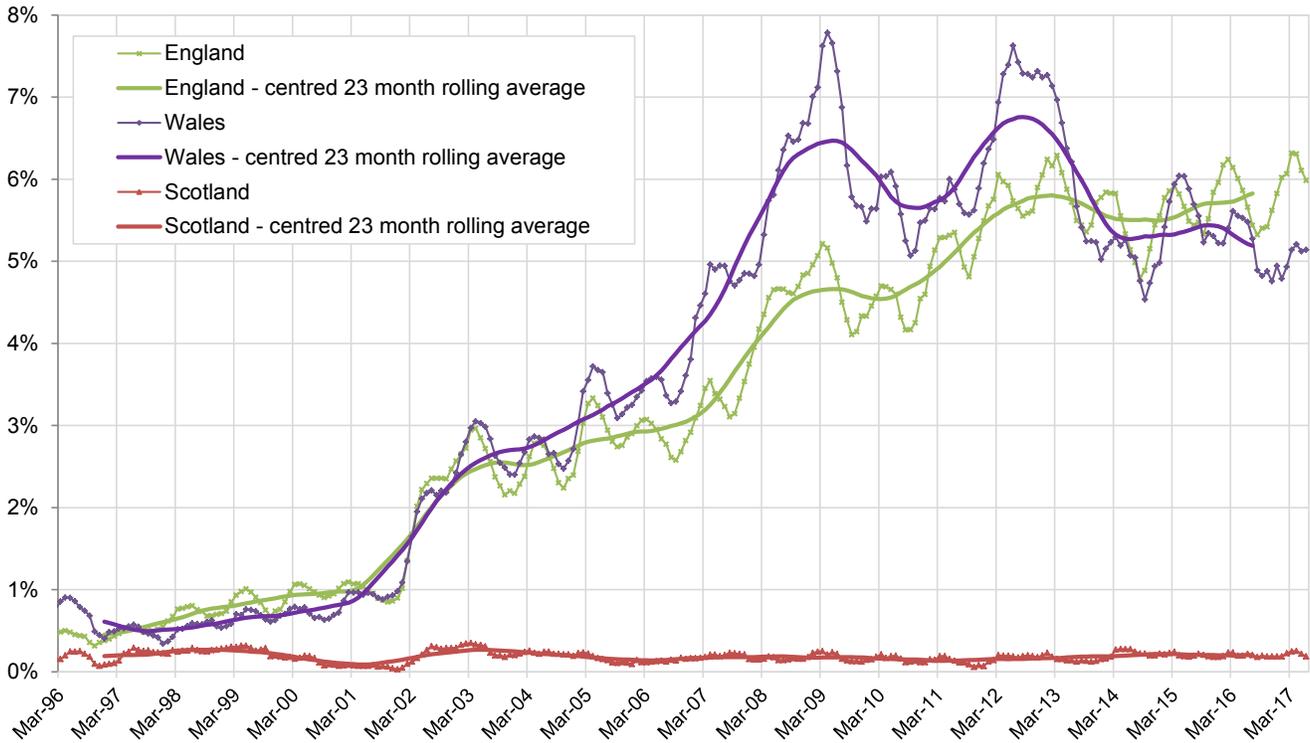
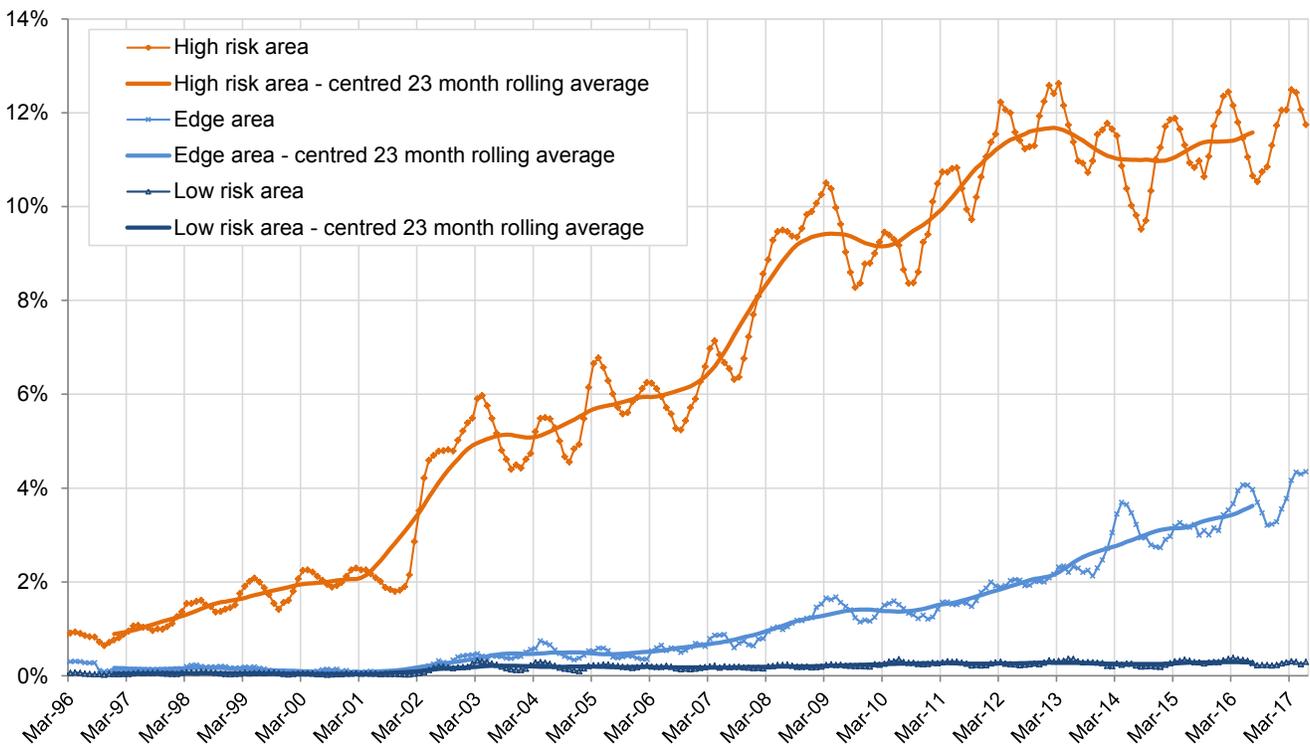


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Commentary on incidence and prevalence of TB in Cattle in Great Britain

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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 carcasses 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. There has been no stable time series until recently because of surveillance and testing changes. 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 with an open TB incident), [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 conclude that this is part of a new longer term trend.

Regional differences

The regional and county-level statistics published as part of this statistical notice (available at www.gov.uk/government/statistical-data-sets/tuberculosis-tb-in-cattle-in-great-britain) show that there are considerable differences in the distribution and frequency of bovine TB across GB.

Comparability of Wales data. 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. [table 2a](#) and [figure 3](#)) are not directly comparable for Wales and the other countries of GB. In 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. The overall herd incidence rate ([figure 1](#) and [table 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-monthly 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. [Figure 6](#)

- 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. [Figure 2](#) and [Figure 6](#).

Trends in herd tests

[Table 4](#) and [table 5](#), show that from October 2015 to November 2016 there were steady decreases in the number of TB tests completed on herds. The decrease is mainly as a result of changes in APHA testing procedures made in November 2015, and more specifically to testing of cattle that have moved out of TB-infected herds before detection of the disease (“TB forward tracings”). Changes to these “tracing” tests include:

- Bespoke tracing tests of individual animals are no longer performed in England if a whole-herd (or similar) test is already due in the herd of destination within 60 days of the tracing test date, and in Wales if the tracing test is due within the existing herd test window.
- Combining multiple tracing tests for a herd where the traced cattle originate from more than one holding and where test deadlines are within a one month period. Such tests were previously counted separately.

TB tracing tests are included in the “Herd tests” and the “Total cattle tests” measures and these changes are thought to account for much of the decrease in the herd test measures.

Factors affecting statistics on incidence and prevalence of TB in cattle

Short term changes in these statistics should be considered in the context of long term trends. Variation in the monthly and quarterly 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 are tested annually and cattle herds in low risk areas are usually tested every four years. In Scotland approximately 57% of cattle herds are now exempt from routine TB surveillance testing. See [Surveillance policy in GB](#) 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 trend lines 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

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 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 at least annually, with 6 monthly testing in the Intensive Action Area.

Scotland has in place a risk-based routine herd testing policy. This targets testing at higher risk herds. Around 57 per cent of herds are considered low risk herds and are exempt from routine testing. These are herds which have 50 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.

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 www.gov.uk/government/statistics/data-and-methodology.

Changes to inconclusive reactors data series

A inconclusive reactor (IR) is an animal showing a positive reaction to bovine tuberculin that was not strong enough for it to be deemed a reactor. However, instead of being tested again after 60 days (the normal procedure in this case) the animal was compulsorily slaughtered. This applies in certain circumstances in Wales, where some IRs in persistent breakdown herds are automatically removed with compensation. The policy came into force in Wales in 2016 however these animals were classified as Direct Contacts (DCs) up to March 2017 because a suitable code had not yet been created in Sam in order to capture them as IRs.

Prior to April 2017, some animals slaughtered as reactors or direct contacts were incorrectly classified as IRs on Sam, and reported as IRs in the National Statistics and Official Statistics. These animals are now reported under "total animals slaughtered", and they have been removed from the historical IR series.

Table 4: Herd and test numbers – Great Britain

	England				Scotland				Wales				Great Britain (5)			
	Number of cattle herds registered on		Tests on officially TB free (OTF)		Number of cattle herds registered on		Tests on officially TB free (OTF)		Number of cattle herds registered on		Tests on officially TB free (OTF)		Number of cattle herds registered on		Tests on officially TB free (OTF)	
	Sam (1)	on herds (2)	herds (3)	Total cattle tests (4)	Sam	on herds	herds	Total cattle tests	Sam	on herds	herds	Total cattle tests	Sam	on herds	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	4,103	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	4,435	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	3,512	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	5,496,051	13,316	3,426	3,359	229,824	12,821	19,108	16,302	1,861,996	80,443	76,656	62,486	7,587,871
2012	53,561	63,499	51,815	5,857,660	12,981	2,880	2,811	222,368	12,721	22,209	19,038	1,950,958	79,321	88,588	73,664	8,030,993
2013	53,706	64,428	52,807	6,283,185	12,952	2,322	2,276	162,945	12,642	20,082	17,085	1,943,846	79,392	86,848	72,183	8,390,230
2014	51,722	68,909	57,713	6,927,096	13,070	2,579	2,499	217,258	12,019	19,643	17,295	1,899,712	76,916	91,161	77,537	9,044,408
2015	51,232	69,000	57,327	7,302,291	13,176	2,634	2,565	265,800	11,669	20,575	18,132	2,022,843	76,124	92,232	78,047	9,591,244
2016	51,120	61,753	49,680	7,559,172	13,273	2,529	2,461	244,188	11,646	17,982	15,651	2,034,215	76,056	82,267	67,795	9,837,624
12 months to end June 16	51,123	64,710	52,624	7,369,091	13,228	2,613	2,542	250,386	11,589	19,291	16,909	2,049,560	75,981	86,621	72,082	9,669,135
12 months to end June 17	51,187	59,582	47,991	7,600,420	13,303	2,067	1,986	210,845	11,827	17,434	15,178	2,032,294	76,330	79,083	65,155	9,843,559
Jan-15	51,226	7,298	6,125	752,914	13,063	455	449	52,047	11,960	2,164	1,937	210,794	76,334	9,921	8,515	1,015,788
Feb-15	51,110	6,845	5,844	680,021	13,077	391	384	49,734	11,879	2,097	1,919	171,006	76,132	9,337	8,151	900,840
Mar-15	51,073	6,949	6,023	714,136	13,080	297	291	34,088	11,871	2,211	2,048	202,718	76,087	9,459	8,364	951,021
Apr-15	51,092	7,037	5,814	696,419	13,097	186	176	18,133	11,858	2,111	1,839	201,748	76,109	9,340	7,835	916,364
May-15	51,091	4,975	4,085	493,192	13,134	202	199	19,112	11,860	1,518	1,304	141,299	76,154	6,697	5,590	653,606
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	5,314	4,141	554,607	13,165	90	84	3,984	11,856	1,422	1,155	141,760	76,278	6,828	5,382	700,374
Aug-15	51,116	4,360	3,566	440,296	13,160	81	75	4,877	11,812	1,296	1,123	133,371	76,130	5,737	4,764	578,544
Sep-15	51,153	4,701	3,863	476,618	13,154	84	78	4,646	11,705	1,437	1,251	143,283	76,062	6,222	5,192	624,551
Oct-15	51,258	6,350	5,385	691,046	13,163	161	152	14,475	11,684	2,135	1,915	205,116	76,153	8,646	7,452	910,637
Nov-15	51,257	5,665	4,823	692,927	13,170	281	277	25,160	11,682	1,659	1,486	199,536	76,156	7,605	6,586	917,623
Dec-15	51,232	4,920	4,025	629,648	13,176	321	321	32,965	11,669	1,359	1,196	155,587	76,124	6,602	5,544	818,222
Jan-16	51,235	6,550	5,358	750,094	13,163	403	397	40,874	11,658	1,772	1,537	194,797	76,103	8,727	7,294	985,771
Feb-16	51,199	5,945	4,836	694,251	13,169	373	368	46,454	11,609	1,816	1,647	184,901	76,018	8,134	6,851	925,606
Mar-16	51,074	5,459	4,608	611,236	13,182	281	280	25,600	11,565	1,779	1,627	183,269	75,862	7,520	6,516	820,148
Apr-16	51,128	7,345	5,810	862,892	13,200	228	215	27,495	11,579	2,240	1,994	235,505	75,948	9,813	8,019	1,125,892
May-16	51,171	4,397	3,511	492,830	13,217	185	177	15,937	11,581	1,382	1,183	150,766	76,012	5,964	4,871	659,533
Jun-16	51,123	3,704	2,698	472,646	13,228	125	118	7,919	11,589	994	795	121,669	75,981	4,823	3,611	602,234
Jul-16	51,092	3,913	2,787	552,668	13,244	72	68	5,637	11,600	979	773	126,597	75,979	4,964	3,628	684,902
Aug-16	51,099	3,797	2,993	454,013	13,244	88	79	4,345	11,614	1,103	914	124,642	75,987	4,988	3,986	583,000
Sep-16	51,039	4,762	3,787	627,512	13,245	94	89	5,416	11,622	1,506	1,291	180,641	75,938	6,362	5,167	813,569
Oct-16	50,998	4,888	4,074	612,466	13,247	124	120	7,399	11,642	1,510	1,352	165,659	75,919	6,522	5,546	785,524
Nov-16	51,081	5,494	4,699	715,759	13,257	262	261	18,003	11,649	1,514	1,317	186,855	76,022	7,270	6,277	920,617
Dec-16	51,120	5,499	4,519	712,805	13,273	294	289	39,109	11,646	1,387	1,221	178,914	76,056	7,180	6,029	930,828
Jan-17	51,215	5,612	4,613	705,484	13,285	276	273	30,690	11,634	1,521	1,318	171,672	76,151	7,409	6,204	907,846
Feb-17	51,241	5,435	4,403	684,117	13,290	254	250	37,743	11,620	1,678	1,520	173,502	76,166	7,367	6,173	895,362
Mar-17	50,851	6,473	5,360	799,305	13,298	244	240	29,615	11,637	2,013	1,813	236,386	75,800	8,730	7,413	1,065,306
Apr-17	50,788	5,239	4,174	687,322	13,307	156	135	14,277	11,659	1,692	1,492	203,943	75,769	7,087	5,801	905,542
May-17	51,069	4,455	3,446	547,669	13,317	109	94	11,864	11,733	1,383	1,218	148,183	76,136	5,947	4,758	707,716
Jun-17	51,187	4,015	3,136	501,300	13,303	94	88	6,747	11,827	1,148	949	135,300	76,330	5,257	4,173	643,347

See [Notes on tables](#)

Table 5: Herd and test numbers – England

	High risk area				Edge area				Low risk area				England			
	Number of cattle herds registered on		Tests on officially TB		Number of cattle herds registered on		Tests on officially TB		Number of cattle herds registered on		Tests on officially TB		Number of cattle herds registered on		Tests on officially TB	
	Sam (1)	Total tests on herds (2)	free (OTF) herds (3)	Total cattle tests (4)	Sam	Total tests on herds	free (OTF) herds	Total cattle tests	Sam	Total tests on herds	free (OTF) herds	Total cattle tests	Sam	Total tests on herds	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	22,364	6,981	6,826	314,998	57,376	50,141	40,333	4,829,107
2010	25,965	38,303	28,847	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
2011	25,189	40,536	29,905	4,646,234	7,970	6,016	5,539	491,483	21,134	7,570	7,381	358,334	54,293	54,122	42,825	5,496,051
2012	24,748	47,631	36,628	4,979,450	7,767	7,713	7,181	552,248	21,046	8,155	8,006	325,962	53,561	63,499	51,815	5,857,660
2013	24,503	46,665	35,841	5,045,666	7,902	9,196	8,620	778,103	21,301	8,567	8,346	459,416	53,706	64,428	52,807	6,283,185
2014	23,382	47,501	37,458	5,186,897	7,435	11,220	10,259	1,104,018	20,905	10,188	9,996	636,181	51,722	68,909	57,713	6,927,096
2015	23,065	47,462	36,911	5,425,337	7,235	11,200	10,310	1,118,566	20,932	10,338	10,106	758,388	51,232	69,000	57,327	7,302,291
2016	22,961	43,018	32,168	5,645,374	7,197	10,286	9,293	1,173,576	20,962	8,449	8,219	740,222	51,120	61,753	49,680	7,559,172
12 months to end June 16	22,917	44,606	33,731	5,500,251	7,191	10,777	9,824	1,148,933	21,015	9,327	9,069	719,907	51,123	64,710	52,624	7,369,091
12 months to end June 17	22,906	41,799	31,370	5,655,124	7,150	9,989	9,016	1,178,472	21,131	7,794	7,605	766,824	51,187	59,582	47,991	7,600,420
Jan-15	23,033	4,836	3,757	553,492	7,338	1,214	1,137	111,891	20,855	1,248	1,231	87,531	51,226	7,298	6,125	752,914
Feb-15	22,964	4,628	3,713	493,494	7,310	1,057	988	106,489	20,836	1,160	1,143	80,038	51,110	6,845	5,844	680,021
Mar-15	22,928	4,604	3,755	495,294	7,291	1,251	1,190	130,868	20,854	1,094	1,078	87,974	51,073	6,949	6,023	714,136
Apr-15	22,924	4,897	3,794	506,182	7,292	1,183	1,090	114,643	20,876	957	930	75,594	51,092	7,037	5,814	696,419
May-15	22,922	3,422	2,621	360,498	7,280	774	700	74,191	20,889	779	764	58,503	51,091	4,975	4,085	493,192
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	432,439	7,268	832	722	79,932	20,942	730	701	42,236	51,219	5,314	4,141	554,607
Aug-15	22,993	3,173	2,455	354,808	7,218	629	573	54,971	20,905	558	538	30,517	51,116	4,360	3,566	440,296
Sep-15	23,023	3,453	2,702	379,637	7,212	731	660	69,626	20,918	517	501	27,355	51,153	4,701	3,863	476,618
Oct-15	23,058	4,546	3,676	520,893	7,237	1,006	930	96,087	20,963	798	779	74,066	51,258	6,350	5,385	691,046
Nov-15	23,075	3,739	2,979	495,597	7,242	973	908	115,797	20,940	953	936	81,533	51,257	5,665	4,823	692,927
Dec-15	23,065	3,239	2,431	455,420	7,235	849	780	98,930	20,932	832	814	75,298	51,232	4,920	4,025	629,648
Jan-16	23,043	4,369	3,280	545,084	7,237	1,099	1,017	118,653	20,955	1,082	1,061	86,357	51,235	6,550	5,358	750,094
Feb-16	23,034	4,000	2,989	508,919	7,221	1,001	922	106,267	20,944	944	925	79,065	51,199	5,945	4,836	694,251
Mar-16	22,996	3,647	2,879	422,134	7,172	995	930	119,814	20,906	817	799	69,288	51,074	5,459	4,608	611,236
Apr-16	23,021	5,055	3,656	647,655	7,177	1,318	1,215	143,740	20,930	972	939	71,497	51,128	7,345	5,810	862,892
May-16	23,017	2,953	2,173	357,846	7,180	747	668	81,851	20,974	697	670	53,133	51,171	4,397	3,511	492,830
Jun-16	22,917	2,680	1,793	379,819	7,191	597	499	63,265	21,015	427	406	29,562	51,123	3,704	2,698	472,646
Jul-16	22,866	2,934	1,935	438,429	7,185	593	491	78,935	21,041	386	361	35,304	51,092	3,913	2,787	552,668
Aug-16	22,885	2,818	2,127	360,542	7,176	580	484	65,017	21,038	399	382	28,454	51,099	3,797	2,993	454,013
Sep-16	22,911	3,631	2,759	502,814	7,179	708	618	81,934	20,949	423	410	42,764	51,039	4,762	3,787	627,512
Oct-16	22,908	3,506	2,770	462,454	7,179	807	742	94,563	20,911	575	562	55,449	50,998	4,888	4,074	612,466
Nov-16	22,942	3,748	3,037	509,763	7,193	940	869	110,962	20,946	806	793	95,034	51,081	5,494	4,699	715,759
Dec-16	22,961	3,677	2,770	509,915	7,197	901	838	108,575	20,962	921	911	94,315	51,120	5,499	4,519	712,805
Jan-17	22,998	3,749	2,841	508,263	7,204	976	902	112,341	21,013	887	870	84,880	51,215	5,612	4,613	705,484
Feb-17	23,015	3,700	2,749	503,975	7,207	960	889	107,917	21,019	775	765	72,225	51,241	5,435	4,403	684,117
Mar-17	22,835	4,427	3,417	577,083	7,132	1,204	1,122	146,519	20,884	842	821	75,703	50,851	6,473	5,360	799,305
Apr-17	22,806	3,664	2,699	502,490	7,122	947	863	117,088	20,860	628	612	67,744	50,788	5,239	4,174	687,322
May-17	22,886	3,022	2,129	398,026	7,145	772	674	85,225	21,038	661	643	64,418	51,069	4,455	3,446	547,669
Jun-17	22,906	2,923	2,137	381,370	7,150	601	524	69,396	21,131	491	475	50,534	51,187	4,015	3,136	501,300

Table 6: TB incidents and animals slaughtered – Great Britain

	England				Scotland				Wales				Great Britain (5)			
	Herds not officially TB free at the end of the period due to a bovine TB incident (1)		NHI of which: officially TB free herd status withdrawn (OTFW) (3)		Herds not officially TB free at the end of the period due to a bovine TB incident		NHI of which: officially TB free herd status withdrawn (OTFW) (3)		Herds not officially TB free at the end of the period due to a bovine TB incident		NHI of which: officially TB free herd status withdrawn (OTFW) (3)		Herds not officially TB free at the end of the period due to a bovine TB incident		NHI of which: officially TB free herd status withdrawn (OTFW) (3)	
	incidents (NHI) (2)	Total animals slaughtered (4)	incidents (NHI)	Total animals slaughtered (4)	incidents (NHI)	Total animals slaughtered (4)	incidents (NHI)	Total animals slaughtered (4)	incidents (NHI)	Total animals slaughtered (4)	incidents (NHI)	Total animals slaughtered (4)	incidents (NHI)	Total animals slaughtered (4)	incidents (NHI)	Total animals slaughtered (4)
2005	1,799	2,895	1,865	22,847	14	37	13	194	490	732	430	6,783	2,305	3,665	2,308	29,824
2006	1,778	2,719	1,808	16,393	24	44	19	224	567	767	477	5,903	2,369	3,531	2,304	22,520
2007	2,206	3,196	2,042	18,916	22	58	22	515	686	935	485	7,963	2,914	4,190	2,549	27,394
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	39,675
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	3,802	2,628	26,467	9	43	8	140	794	1,046	522	8,068	3,804	4,914	3,165	34,675
2012	3,242	3,919	2,867	28,286	26	54	12	418	921	1,109	563	9,289	4,220	5,115	3,452	37,993
2013	3,102	3,890	2,806	26,594	20	28	10	95	635	877	447	6,102	3,793	4,813	3,264	32,791
2014	2,874	3,804	2,789	26,413	29	47	17	240	599	858	525	6,378	3,525	4,718	3,332	33,031
2015	3,053	3,965	2,896	28,030	24	40	10	135	609	836	476	8,086	3,707	4,849	3,384	36,252
2016	2,977	3,751	2,538	29,230	25	37	9	187	576	711	400	9,944	3,603	4,505	2,948	39,364
12 months to end June 16	2,892	3,911	2,710	29,803	29	47	11	203	635	742	403	9,444	3,579	4,706	3,125	39,451
12 months to end June 17	3,063	3,856	2,559	30,980	25	33	11	150	608	729	393	9,693	3,720	4,624	2,967	40,826
Jan-15	2,958	380	273	2,339	28	3	0	9	648	109	72	655	3,652	493	345	3,003
Feb-15	2,993	347	259	2,300	30	6	1	15	680	87	52	654	3,721	440	312	2,969
Mar-15	3,019	370	275	2,483	32	4	1	16	705	84	55	535	3,774	458	331	3,034
Apr-15	2,973	326	248	1,995	26	3	1	6	716	81	38	581	3,734	412	287	2,582
May-15	2,895	266	184	2,110	25	1	0	5	716	65	31	746	3,655	332	215	2,861
Jun-15	2,806	259	188	2,071	24	2	0	5	698	50	24	537	3,548	313	213	2,613
Jul-15	2,786	308	216	2,354	26	6	1	8	675	69	36	701	3,507	383	253	3,063
Aug-15	2,797	257	192	2,092	29	5	2	3	656	57	32	570	3,501	319	226	2,665
Sep-15	2,726	277	214	2,344	27	2	2	35	612	41	22	637	3,385	321	238	3,016
Oct-15	2,828	414	302	2,501	25	2	1	4	624	83	52	711	3,499	501	356	3,216
Nov-15	2,993	414	289	2,644	24	4	1	9	620	63	32	726	3,658	481	322	3,379
Dec-15	3,053	347	256	2,797	24	2	0	20	609	47	30	1,033	3,707	396	286	3,851
Jan-16	3,163	392	258	2,332	25	6	0	8	608	66	39	798	3,817	464	297	3,138
Feb-16	3,195	356	239	2,824	31	6	0	30	627	83	52	900	3,874	445	291	3,754
Mar-16	3,136	307	219	2,835	31	3	1	6	649	65	26	751	3,836	375	246	3,592
Apr-16	3,071	364	237	2,278	26	2	1	21	643	60	31	799	3,762	428	269	3,098
May-16	3,000	258	155	2,692	26	5	0	16	640	54	23	779	3,689	318	178	3,487
Jun-16	2,892	217	133	2,110	29	4	2	43	635	54	28	1,039	3,579	275	163	3,192
Jul-16	2,778	236	164	2,113	27	2	0	11	612	53	28	719	3,439	291	192	2,846
Aug-16	2,720	230	158	2,135	24	1	1	14	568	38	16	714	3,334	269	175	2,863
Sep-16	2,757	351	253	2,501	26	6	3	5	560	50	32	972	3,366	408	288	3,478
Oct-16	2,763	332	232	2,442	25	0	0	5	568	66	45	675	3,379	398	277	3,122
Nov-16	2,870	377	265	2,558	25	1	0	16	554	52	36	745	3,474	432	302	3,319
Dec-16	2,977	331	225	2,410	25	1	1	12	576	70	44	1,053	3,603	402	270	3,475
Jan-17	3,083	375	257	2,714	25	4	0	4	557	54	25	845	3,688	434	283	3,563
Feb-17	3,107	357	235	2,640	30	6	1	9	573	60	30	673	3,732	423	266	3,322
Mar-17	3,213	420	268	3,489	33	5	2	35	598	84	42	905	3,867	510	313	4,429
Apr-17	3,204	310	186	2,186	34	5	3	9	607	70	32	717	3,868	385	221	2,912
May-17	3,119	253	155	3,555	29	1	0	18	601	70	33	862	3,773	325	189	4,435
Jun-17	3,063	284	161	2,237	25	1	0	12	608	62	30	813	3,720	347	191	3,062

See [Notes on tables](#)

Table 7: TB incidents and animals slaughtered – England

	High risk area				Edge area				Low risk area				England			
	Herds not officially TB free at the end of the period due to a bovine TB incident (1)	New herd incidents (NHI) (2)	NHI of which: officially TB free herd status withdrawn (OTFW) (3)	Total animals slaughtered (4)	Herds not officially TB free at the end of the period due to a bovine TB incident	New herd incidents (NHI)	NHI of which: officially TB free herd status withdrawn (OTFW)	Total animals slaughtered	Herds not officially TB free at the end of the period due to a bovine TB incident	New herd incidents (NHI)	NHI of which: officially TB free herd status withdrawn (OTFW)	Total animals slaughtered	Herds not officially TB free at the end of the period due to a bovine TB incident	New herd incidents (NHI)	NHI of which: officially TB free herd status withdrawn (OTFW)	Total animals slaughtered
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	24,726	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	3,466	2,486	24,938	149	238	112	1,070	47	98	30	459	2,982	3,802	2,628	26,467
2012	3,029	3,582	2,697	26,876	155	234	131	1,199	58	103	39	211	3,242	3,919	2,867	28,286
2013	2,850	3,480	2,609	24,616	195	301	158	1,518	57	109	39	460	3,102	3,890	2,806	26,594
2014	2,632	3,346	2,560	22,706	203	349	193	3,024	39	109	36	683	2,874	3,804	2,789	26,413
2015	2,769	3,462	2,666	24,674	224	345	179	2,745	60	158	51	611	3,053	3,965	2,896	28,030
2016	2,693	3,230	2,305	25,336	236	388	194	3,293	48	133	39	601	2,977	3,751	2,538	29,230
12 months to end June 16	2,533	3,374	2,478	26,183	292	386	187	2,949	67	151	45	671	2,892	3,911	2,710	29,803
12 months to end June 17	2,690	3,348	2,312	26,952	311	391	209	3,432	62	117	38	596	3,063	3,856	2,559	30,980
Jan-15	2,696	323	253	2,078	213	37	15	218	49	20	5	43	2,958	380	273	2,339
Feb-15	2,721	299	240	1,918	217	33	15	344	55	15	4	38	2,993	347	259	2,300
Mar-15	2,723	317	245	2,170	232	33	21	270	64	20	9	43	3,019	370	275	2,483
Apr-15	2,670	280	228	1,652	238	35	16	245	65	11	4	98	2,973	326	248	1,995
May-15	2,592	222	167	1,770	232	24	13	267	71	20	4	73	2,895	266	184	2,110
Jun-15	2,510	224	170	1,768	230	29	16	223	66	6	2	80	2,806	259	188	2,071
Jul-15	2,492	264	202	2,069	234	32	11	245	60	12	3	40	2,786	308	216	2,354
Aug-15	2,522	238	184	1,933	216	13	7	137	59	6	1	22	2,797	257	192	2,092
Sep-15	2,448	239	190	2,094	223	28	19	222	55	10	5	28	2,726	277	214	2,344
Oct-15	2,552	378	284	2,242	217	22	13	188	59	14	5	71	2,828	414	302	2,501
Nov-15	2,704	362	264	2,437	228	39	20	187	61	13	5	20	2,993	414	289	2,644
Dec-15	2,769	316	239	2,543	224	20	13	199	60	11	4	55	3,053	347	256	2,797
Jan-16	2,846	326	225	2,032	248	44	26	219	69	22	7	81	3,163	392	258	2,332
Feb-16	2,866	301	218	2,468	255	39	18	331	74	16	3	25	3,195	356	239	2,824
Mar-16	2,794	260	198	2,404	263	31	16	330	79	16	5	101	3,136	307	219	2,835
Apr-16	2,715	305	210	1,970	283	50	25	278	73	9	2	30	3,071	364	237	2,278
May-16	2,638	208	141	2,214	292	37	11	343	70	13	3	135	3,000	258	155	2,692
Jun-16	2,533	177	123	1,777	292	31	8	270	67	9	2	63	2,892	217	133	2,110
Jul-16	2,436	210	150	1,872	285	22	12	207	57	4	2	34	2,778	236	164	2,113
Aug-16	2,409	208	145	1,857	265	18	13	236	46	4	0	42	2,720	230	158	2,135
Sep-16	2,461	313	236	2,229	249	28	12	233	47	10	5	39	2,757	351	253	2,501
Oct-16	2,485	294	208	2,193	230	29	21	230	48	9	3	19	2,763	332	232	2,442
Nov-16	2,593	331	243	2,269	232	39	20	264	45	7	2	25	2,870	377	265	2,558
Dec-16	2,693	297	208	2,051	236	20	12	352	48	14	5	7	2,977	331	225	2,410
Jan-17	2,772	317	223	2,447	256	41	26	236	55	17	8	31	3,083	375	257	2,714
Feb-17	2,775	314	222	2,269	272	33	13	327	60	10	0	44	3,107	357	235	2,640
Mar-17	2,852	352	231	3,086	297	55	33	362	64	13	4	41	3,213	420	268	3,489
Apr-17	2,834	263	168	1,795	309	41	15	283	61	6	3	108	3,204	310	186	2,186
May-17	2,761	212	136	2,976	307	33	16	458	51	8	3	121	3,119	253	155	3,555
Jun-17	2,690	237	142	1,908	311	32	16	244	62	15	3	85	3,063	284	161	2,237

See [Notes on tables](#)

Notes on tables

The statistics are a snapshot of the position on the date on which the data were extracted. The statistics from January 2015 are revised monthly. In addition there are a number of incidents between May and December 2011 which remain unclassified. This followed the transition to APHA's current computer system Sam. This affects only a small number of records and work in 2015 and early 2016 to investigate these incidents has reduced this number substantially.

Table 4 and Table 5 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 as well as changes in the real numbers of herds.

(2) Count of herds for which tuberculin skin testing is carried out on at least one animal during the period shown. These could be individual or herd-level tests. Does not include the supplementary interferon-gamma blood tests, which are performed in herds already under TB restrictions.

(3) Count of 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 interferon-gamma tests.

(4) Count of the number of tests on cattle in both OTF and non-OTF herds. 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.

Table 6 and Table 7 TB incidents and animals slaughtered

(1) Herds which were not officially TB-free (i.e. herds under restriction with OTF status suspended or withdrawn) due to a TB incident, at the end of the period shown.

(2) Herds which were previously OTF and had a TB incident during the period considered, (i.e. either had cattle that reacted to a tuberculin test or a tuberculous animal disclosed by routine meat inspection at slaughter). Figures for Wales include incidents where OTF status has been withdrawn for epidemiological reasons only.

(3) New herd incidents where OTF status was withdrawn from the herd following detection of at least one reactor with visible lesions typical of TB and/or one animal with positive culture results. Figures for Wales do not include incidents where OTF status has been withdrawn for epidemiological reasons only. These are currently included within the "officially TB free herd status suspended" figures, which can be found in the accompanying GB by country and regional county datasets. www.gov.uk/government/statistical-data-sets/tuberculosis-tb-in-cattle-in-great-britain

(4) Reactors slaughtered + inconclusive reactors slaughtered (Wales only from April 2017) + 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.

Background Information on Bovine Tuberculosis

[What is bovine tuberculosis?](#)

[What are the impacts of bTB?](#)

[Why monitor statistics about bTB?](#)

[Further information on bovine TB](#)

What is bovine tuberculosis?

Bovine tuberculosis (bTB) is a chronic infectious disease of cattle². The risk bTB poses to human health is low, largely due to milk pasteurisation. The disease is detected either on farms (through mandatory skin tests³ of cattle herds for bTB at regular intervals) and at abattoirs (through post-mortem meat inspection of cattle carcasses).

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 breakdown⁴ are shared by farmers and government⁵. 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 international trade in cattle and cattle products.
- Significant stress amongst farmers, their families and local communities⁶
- The infection spilling over to domestic and wild animals⁷.

² 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.

³ 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.

⁴ 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.

⁵ Economic analysis based on [research report SE3112 for Defra, 2004](#)

⁶ See for example [research report SE3120 for Defra, 2008](#)

⁷ For example Broughan, J. M., Downs, S. H., Crawshaw, T. R., Upton, P. A., Brewer, J. & Clifton-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 [webarchive.nationalarchives.gov.uk/20140405112558/http://www.defra.gov.uk/ahvla-en/publication/pub-survreport-tb/](http://www.defra.gov.uk/ahvla-en/publication/pub-survreport-tb/)

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) status⁸. Defra and Welsh Government policy is to achieve 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).

Further information on bovine TB

More information on bovine TB can be found at:

- England: www.gov.uk/government/policies/reducing-bovine-tuberculosis
- Wales: gov.wales/topics/environmentcountryside/ahw/disease/bovinetuberculosis/?lang=en
- Scotland: www.scotland.gov.uk/Topics/farmingrural/Agriculture/animal-welfare/Diseases/disease/tuberculosis

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

⁸ "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.

Data available to download

Headline data from 1996 onwards is available to download for GB countries and England risk areas www.gov.uk/government/statistical-data-sets/tuberculosis-tb-in-cattle-in-great-britain:

Data Item	Description	Timing
New herd incidents per 100 herd years at risk of infection during the year Headline herd incidence	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 12 months ending the date shown, divided by the amount of time herds tested during that period were unrestricted and at risk of infection. Figures for Wales include incidents where OTF status has been withdrawn for epidemiological reasons only. See also Herd incidence methodology paper	Quarterly
New herd incidents where OTF status is withdrawn (OTFW) per 100 herd years at risk of infection during the year	New herd incidents where OTF status was withdrawn from the herd, divided by the amount of time herds tested during that period were unrestricted and at risk of infection. Figures for Wales do not include incidents where OTF status has been withdrawn for epidemiological reasons only. These are currently included within the "officially TB free herd status suspended" figures. See also Herd incidence methodology paper	Quarterly
Number of non-OTF herds at the end of the period as a percentage of registered herds Headline herd prevalence	Herds which were not officially TB-free (i.e. herds under movement restrictions with OTF status suspended or withdrawn) due to a TB incident, at the end of the period as percentage of The number of herds registered on the APHA's Sam (computer) system.	Monthly data updated quarterly

Supplementary information from 1996 covering Wales, Scotland, and England risk areas by county is available at: www.gov.uk/government/statistical-data-sets/tuberculosis-tb-in-cattle-in-great-britain

Data Item	Description	Timing
Number of cattle herds registered on Sam	The number of herds registered on APHA's computer system (currently Sam and before 2011 Vetnet). Occasionally there are changes to the number of herds registered on Sam. As well as being due to real changes in the numbers, this can be the result of routine or ad hoc data cleansing and may result in some short term fluctuations in the dataset. Country-level totals may differ from the sum of the risk areas or counties because the exact location of some herds cannot be matched to current boundaries.	Monthly
Herds not officially TB free at the end of the period due to a bovine TB incident (non OTF herds)	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.	Monthly

Data Item	Description	Timing
Total tests on herds	Herds for which tuberculin skin testing is carried out on at least one animal during the period shown. Does not include Gamma tests.	Monthly
Tests on officially TB free herds (OTF)	Any test carried out in an OTF herd during the period shown. Does not include Gamma tests.	Monthly
Total cattle tests	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.	Monthly
New herd incidents (NHI)	New herd incidents (NHI): 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. Figures for Wales include incidents where OTF status has been withdrawn for epidemiological reasons only.	Monthly
NHI of which: officially TB free herd status withdrawn (OTFW)	NHI of which: officially TB free herd status withdrawn (OTFW): New herd incidents where OTF status was withdrawn from the herd due to the detection of lesions typical of TB during post-mortem examination of one or more test reactors or inconclusive reactors, or where samples from one or more reactor, inconclusive reactor or a slaughterhouse case produce positive culture results for <i>Mycobacterium bovis</i> (the causative bacterium of bovine TB). Figures for Wales do not include incidents where OTF status has been withdrawn for epidemiological reasons only. These are currently included within the “officially TB free herd status suspended” figures.	Monthly
NHI of which: officially TB free herd status suspended (OTFS)	NHI of which: officially TB free herd status suspended (OTFS): New herd incidents where OTF status was suspended because of reactors in the herds, but post-mortem evidence of TB is not detected. The status remains suspended until further herd tests confirm no infection remains on the farm. Figures for Wales include incidents where OTF status has been withdrawn for epidemiological reasons only.	Monthly
NHI of which: still unclassified TB Incidents (pending culture results)	New herd incidents that at the end of the period covered by the notice had not been designated OTFW, but where testing was still underway and could become OTFW if such tests revealed one or more reactors with post-mortem evidence of TB or a positive culture result.	Monthly
Total animals slaughtered	Reactors slaughtered + Inconclusive reactors slaughtered + Direct contacts (DC) Slaughtered. Prior to April 2017, some animals slaughtered as reactors or DCs were incorrectly classified as Inconclusive Reactors (IR) on Sam, and reported as IRs in the National Statistics and Official Statistics. These animals are now reported under “total animals slaughtered”, and they have been removed from the historical IR series.	Monthly

Data Item	Description	Timing
Reactors slaughtered	An animal which was compulsorily slaughtered because it responded to the tuberculin skin test or interferon-gamma test in a way that was consistent with it being infected with <i>Mycobacterium bovis</i> . Will include animals that were inconclusive reactors at previous tests and tested positive at retest.	Monthly
Inconclusive reactors slaughtered	Inconclusive reactors (IR) are animals showing positive reactions to bovine tuberculin that are not strong enough for them to be deemed reactors. However, instead of being tested again after 60 days (the normal procedure in this case) the animals are compulsorily slaughtered. This applies in certain circumstances in Wales, where some IRs in persistent breakdown herds are automatically removed with compensation. Prior to April 2017, some animals slaughtered as reactors or direct contacts in Great Britain were incorrectly classified as IRs on Sam, and reported as IRs these statistics. These animals are now reported under 'total animals slaughtered', and they have been removed from the historical IR series.	Monthly
Direct contacts slaughtered	An animal in an OTFW incident that, although not a test reactor, was considered to have been exposed to <i>Mycobacterium bovis</i> and compulsorily slaughtered.	Monthly
Slaughter house cases reported to animal health	An animal where evidence of TB infection was detected by routine meat inspection at slaughter.	Monthly
Confirmed slaughterhouse cases	Slaughterhouse cases where laboratory tests have confirmed presence of M bovis.	Monthly
Herds not officially TB free during the period due to a bovine TB incident (non OTF herds)	Herds which were not officially TB-free (i.e. herds under movement restrictions with OTF status suspended or withdrawn) due to a TB incident, during the period shown. A herd with more than one incident in the period will be counted more than once. As herds may be under restrictions for several consecutive calendar months, the monthly figures cannot be added together to describe the total number of individual herds restricted annually.	Monthly
Herds under movement restrictions at the end of the period	Includes herds under disease restriction (as a result of confirmed or suspected disease from TB tests or detection at slaughterhouse), herds under restriction due to an overdue test and some movement restrictions on animals testing as inconclusive reactors pending their next test. These figures refer to herds under restriction at the end of the period. The figures may include some herds which have subsequently been dispersed or herds at premises which are not currently active.	Monthly