Department for Environment Food & Rural Affairs

Government Statistical Service

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Tuberculosis (TB) in Cattle: Pre-movement and Post-movement Testing in Great Britain, 2006 to September 2017

This notice contains statistics on statutory pre- and post- movement TB testing that is carried out to reduce the risk of spreading TB through movements of infected cattle. Unlike the majority of TB tests, the pre- and post-movement tests reported on in this notice were arranged and paid for by herd owners.

Key points in this quarterly release July to September 2017:

- Pre-movement TB testing in England led to the identification of 168 TB reactors out of 134,827 tests completed in individual animals.
- Pre-movement in Wales led to the identification of 37 TB reactors out of 45,267 tests completed in individual animals.
- Post-movement testing in the Low Risk Area (LRA) of England identified 4 reactors out of 14,050 tests completed in individual animals, bringing the total since the policy was introduced in April 2016 to 14 reactors.
- There were 441 post-movement tests in Scotland of animals that had arrived from yearly and six-monthly testing areas in England and Wales. These tests identified no reactors.

The different TB movement testing regimes in England, Scotland and Wales reflect regional variations in disease incidence, including the Officially TB Free status of Scotland. For background see:
https://www.gov.uk/government/publications/pre-movement-and-post-movement-tb-testing-of-cattle-in-great-britain

Contents of this official statistics release:

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Wales Pre-movement TB Testing
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Revisions to previously published data

The movement of cattle with undetected TB infection is believed to be the most common way in which this disease spreads to new areas. In particular, movements of cattle from high bovine TB incidence areas of GB pose a substantial risk of introducing the infection to the lower incidence areas of England and Wales and to Scotland, which has been officially free of TB since September 2009. Such movements account for more than half

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of all new TB herd breakdowns with lesion- or culture-positive animals identified in the Low Risk Area each year and about one third of such breakdowns in the Edge Area [1].

England Pre-movement TB Testing

Compulsory pre-movement testing of cattle was introduced in England in March 2006, initially for animals over 15 months of age. The minimum qualifying age was lowered to 42 days the following year. Legislative changes implemented since 2012 have progressively led to the abolition of the majority of pre-movement testing exemptions that were permitted under the original TB legislation. Nowadays, all cattle aged 42 days and over moving out of annually (or more frequently) tested herds must have a skin test with negative results within 60 days before movement, with very few exceptions such as cattle moving directly to slaughter, to an approved finishing unit (AFU) or to a slaughter market.

Figure 1 Reactors slaughtered by quarter in England following disclosure by pre-movement tests, since the rollout of the policy in March 2006

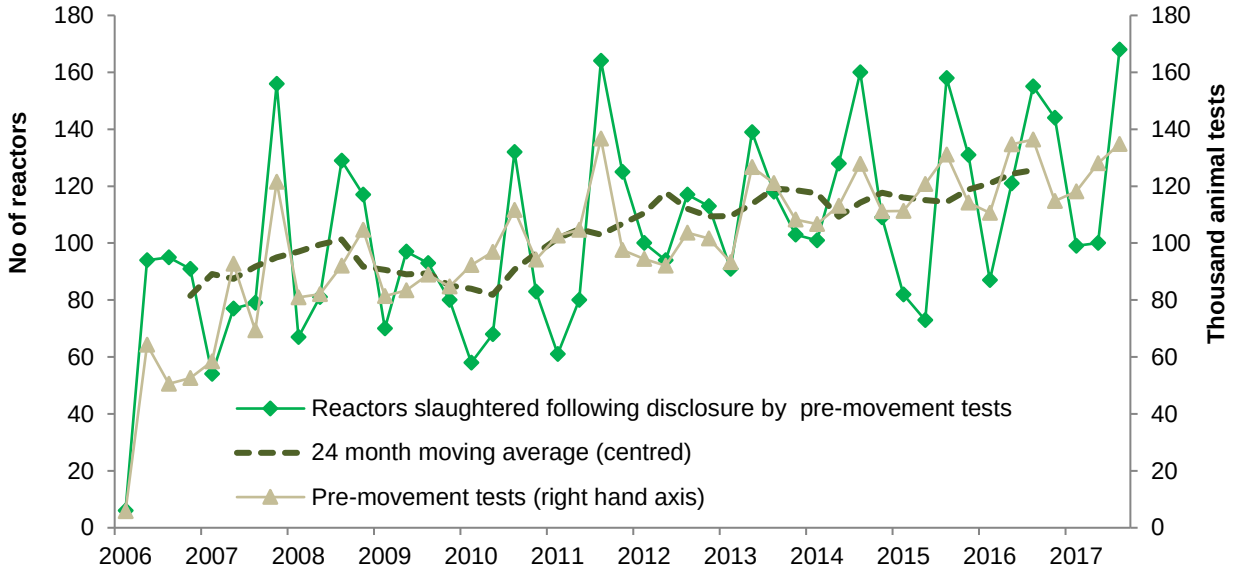

Table 1 England pre-movement TB tests quarterly

	Oct-Dec 2016	Jan-Mar 2017	Apr-Jun 2017	Jul-Sep 2017
All movements	1,222,285	1,134,380	1,213,482	1,161,219
Pre-movement animal tests carried out	114,736	118,128	128,069	134,827
Reactors disclosed by pre-movement tests	144	99	100	168
Herds in which reactors were found by pre-movement tests	65	64	62	86

The underlying statistical dataset from 2006 (Table A: England Pre-movement tests) is available to download at:
https://www.gov.uk/government/statistics/latest-official-statistics-on-pre-movement-and-post-movement-testing-for-tuberculosis-tb-in-cattle-in-great-britain-quarterly

[1] Source: Bovine tuberculosis in England in 2016: Epidemiological analysis of the 2016 data and historical trends. Figure 4.2.7 Hazard and risk pathway attributed in incidents that were resolved in 2016. APHA, September 2017.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/643616/tb-epidemiology-england-2016.pdf

Table 2 England pre-movement TB tests annually, 2013 to 2016

	2013	2014	2015	2016
All movements	4,433,083	4,510,336	4,547,593	4,635,166
Pre-movement animal tests carried out	449,216	458,778	477,215	496,536
Reactors disclosed by pre-movement tests	451	498	444	507
Herds in which reactors were found by pre-movement tests	267	273	271	271

Annual numbers of pre-movement tests (PRMT) in England increased by 11% between 2013 and 2016. This followed the expansion of the areas under annual routine testing and the division of England on 1 January 2013 into a Low Risk Area (on background four-yearly herd testing) and High Risk and Edge Areas (where cattle herds were placed on annual surveillance testing).

Since 2013 the number of herds in England that have had reactors disclosed by pre-movement testing has remained fairly constant as an annual total. Figure 1 shows the seasonal fluctuation in reactors slaughtered with peaks generally in the July to September quarter. This is most likely due the PRMT undertaken prior to the October moves and sales, when animals have been grazing outdoors during spring and summer.

Wales Pre-movement TB Testing

The policy was introduced Wales May 2006, with some changes to exemptions since 2010. All cattle aged 42 days and over moving out of an annually or more frequently tested herd must have tested negative to a TB test within 60 days before movement - unless the herd or type of movement is exempt.

Figure 2 Reactors slaughtered by quarter in Wales following disclosure by pre-movement tests, since the rollout of the policy in March 2006

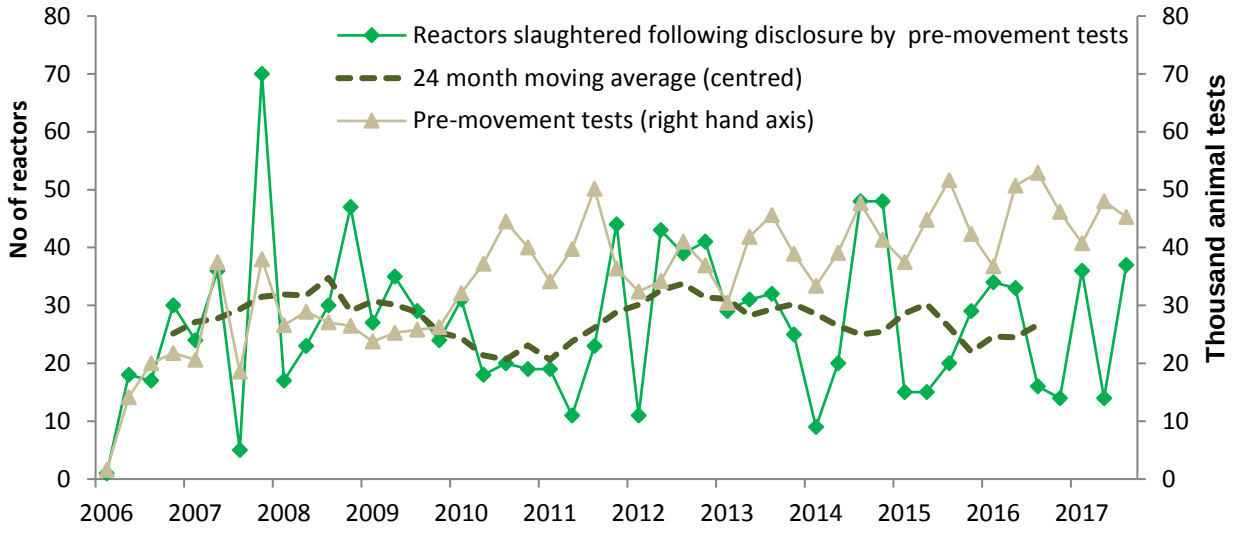

Table 3 Wales pre-movement TB tests quarterly

	Oct-Dec 2016	Jan-Mar 2017	Apr-Jun 2017	Jul-Sep 2017
All movements	247,810	200,811	230,814	213,930
Pre-movement animal tests carried out	46,159	40,751	48,010	45,267
Reactors disclosed by pre-movement tests	14	36	14	37
Herds in which reactors were found by pre-movement tests	10	16	10	19

Table 4 Wales pre-movement TB tests, 2012-2016

	2013	2014	2015	2016
All movements	792,380	810,721	828,754	872,081
Pre-movement animal tests carried out	156,823	161,488	176,178	186,534
Reactors disclosed by pre-movement tests	117	125	79	97
Herds in which reactors were found by pre-movement tests	59	56	46	52

Annual numbers of pre-movement tests (PRMT) in Wales increased by 19% since 2013 to just over 872 thousand in 2016. There appears to be much more variation in the Wales time series compared to England. However, the 24 month moving average that smooths out the peaks and troughs shows that pre-movement testing is detecting between 20 and 30 reactors a quarter on average.

The underlying statistical dataset from 2006 (Table B: Wales Pre-movement tests) is available to download at: https://www.gov.uk/government/statistics/latest-official-statistics-on-pre-movement-and-post-movement-testing-for-tuberculosis-tb-in-cattle-in-great-britain-quarterly

From 1 October 2017 farmers in the Low TB Area of Wales are not required to pre-movement test cattle (some exceptions apply) but are required to post-movement test cattle which move from a herd in an Intermediate or High TB Area in Wales, or the Edge or High Risk Area of England.

Scotland Post-movement TB Testing

Introduced in 2005, all cattle 42 days old and over in a yearly testing area must be pre-movement tested before they enter any Scottish herd. Having entered a Scottish herd these animals must be post-movement tested within 60-120 days although exemptions apply such as if a routine herd test is scheduled.

The figures shown here relate solely to Scotland's post-movement testing rules. A small number of compliance tests are carried out in Scotland on animals with movements not compliant with England and Wales testing rules before they were moved to Scotland. These tests are not included in the data.

Table 5 Scotland post-movement tests quarterly

	Oct-Dec 2016	Jan-Mar 2017	Apr-Jun 2017	Jul-Sep 2017
Post-movement tests	187	325	251	441
Reactors disclosed by post-movement tests	0	0	0	0
Herds in which reactors were found by post-movement tests	0	0	0	0

Table 6 Scotland post-movement tests annually, 2013 to 2016

	2013	2014	2015	2016
Post-movement tests	5,531	5,482	2,292	1,414
Reactors disclosed by post-movement tests	1	1	2	0
Herds in which reactors were found by post-movement tests	1	1	2	0

The number of reactors disclosed by these tests is consistently very low.
The number of post-movement tests carried out each year in Scotland appears to have dropped substantially in recent years from 5,482 in 2014 to 1,411 in 2016. However in

September 2015 there was a change to the way that tests on animals arriving from Northern Ireland were recorded so that they are now captured on a separate code. Data from earlier years is not directly comparable.

The underlying statistical dataset from 2006 (Table C: Scotland post-movement tests) is available to download at: https://www.gov.uk/government/statistics/latest-official-statistics-on-pre-movement-and-post-movement-testing-for-tuberculosis-tb-in-cattle-in-great-britain-quarterly

Post-movement TB Testing in Low Risk Area of England

Introduced in the Low Risk Area (LRA) of England on 6 April 2016, post-movement testing is required between 60 and 120 days of animals arriving to the LRA from other parts of England or from Wales. Therefore the movements may have been undertaken in the previous period e.g. reactors found in Q4 could correspond to testing of animals moved during Q3.

Table 7 Post-movement testing in Low Risk Area of England, quarterly

	Oct-Dec 2016	Jan - Mar 2017	Apr-Jun 2017	Jul-Sep 2017
Cattle movements on to the LRA from Wales and higher risk areas of England	26,298	28,436	30,500	28,811
LRA post-movement animal tests	9,009	14,561	13,267	14,050
Reactors found by post-movement tests	1	7	2	4
Herds in which reactors were found by post-movement tests	1	4	2	4

To date the post-movement tests in the LRA have disclosed 14 reactors. The volume of animal tests appears to have stabilised in the first nine months of 2017.

The underlying statistical dataset (Table D: England post-movement tests) is available to download at: https://www.gov.uk/government/statistics/latest-official-statistics-on-pre-movement-and-post-movement-testing-for-tuberculosis-tb-in-cattle-in-great-britain-quarterly

Revisions to previously published data

In general the method for calculating data items is unchanged from that used for the previous releases by APHA. The main exception is that of data on post-movement testing in Scotland where previously information was included on tests called PRMTS. These tests are carried out on animals that arrived in Scotland without the required pre-movement test or equivalent. Since 2007 these tests have accounted for less than 15% of post movement POSTMTS and PRMTS tests carried out each year. PRMTS tests identified one reactor.

The previous report “Movement testing monitoring data - Inconclusive reactors identified as reactors at the next re-test” contained details of number of inconclusive reactor animals that subsequently were identified as reactors from three types of tests that are no longer reported:

- private (PRI),
- Post-movement England and Wales where a valid pre-movement test had not been carried out (POSTMT), and
- Post-Movement Scotland tests were a valid pre-movement test had not been carried out (PRMTS).

Data source and future revisions

These statistics are obtained from the two sources:

- Animal and Plant Health Agency (APHA) work management IT support system (Sam), used for the administration of TB testing in GB,
- The Cattle Tracing System (CTS).

Data can be subject to review back to 2015.

Glossary of terms

AFU	Approved Finishing Units AFUs provide a route for rearing, fattening or finishing cattle from TB restricted and un-restricted farms. AFUs must be approved and licensed by APHA. There are two types: AFUs with grazing (only in certain areas of the High Risk Area of England only) and AFUs without grazing.
EFU	Pre-Movement Testing Exempt Finishing Units EFUs provide a route for beef producers to finish cattle without the need for a pre-movement test. EFUs must be approved and licensed by APHA. These units must meet strict conditions to reduce the potential risk of disease spread from the premises. There are two types: EFUs with grazing and EFUs without grazing
LFU	A licensed finishing unit (LFU) is a type of TB unit approved by APHA in the LRA and Wales. Cattle finished in LFUs will remain under movement restrictions at all times and can only be moved from those units directly to slaughter.
LRA	Low risk area of England.
POSTLRAOV POSTMOVOV	LRA Post-Movement TB Test
POSTMTS	Post-movement test (Scotland) This is a post-movement test, paid for by the keeper, to be carried out 60-120 days after arrival to Scotland from England or Wales (exceptions apply). The code was amended in September 2015 to exclude animals arriving from Northern Ireland.
PRMT	Pre-movement test (England, Wales) a pre-movement test carried out 60 days or less prior to movement of an animal(s) from an annually tested herd.
PRMTS	A test paid for by the keeper to be carried out on cattle that have arrived into Scotland that should have had a pre-movement test before departure. Data is not included in these statistics.