

## Tuberculosis (TB) - August 18

### Gloucestershire summary for 12 months up to March 31<sup>st</sup> 2018

Of 1052 cattle herds, 182 (17.3%) are under restriction at the end of the period, this is just above the 16.5% of herds that were restricted the year before. There were also more TB incidents than the previous year (this is the number of tests where reactors were found, or animals found to have lesions at slaughter) with 185 TB incidents during the year compared to 180 incidents the year before.

However, on the up side the total number of reactors found has slightly reduced with 1196 found over the year, compared to 1232 found the previous year. The number of confirmed slaughterhouse was also lower with 28 cases during the year compared to 44 the previous year.

### Interferon Gamma Test

The interferon gamma (IFN $\gamma$ ) or 'gamma' test is a supplementary blood test used alongside the tuberculin skin test for the detection of TB in cattle in the UK. In cull areas this test is going to be used to test herds that have a new breakdown (when reactors are found on a 6 monthly or yearly skin test).

Blood samples need to be taken from all eligible cattle. The test measures the immune response of cattle, essentially using the same reaction as the skin test, but by challenging immune cells directly rather than challenging the live animal. Blood is stimulated with bovine and avian tuberculin and levels of interferon gamma (IFN $\gamma$ ) are measured. Interferon gamma is a cytokine

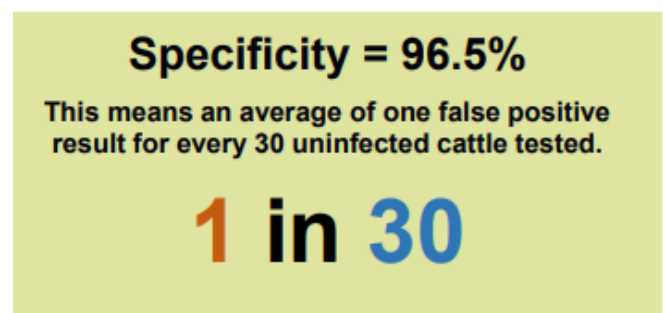
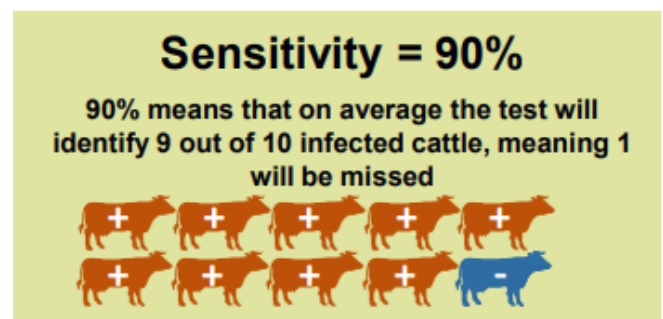
(protein messenger) released by white blood cells (a key part of the immune system).

Cattle that have bovine TB will release greater amounts of IFN $\gamma$  in response to bovine tuberculin compared to avian tuberculin.

There are several possible outcomes for each blood sample subjected to the gamma test:

- Positive – the animal has failed the test and is classified as a reactor (gamma reactor)
- Negative – the animal has passed the test
- Re-sample / Rejected – the blood sample failed the quality controls for the test or was not tested (respectively). The laboratory will request a new sample from the same animal.

How accurate is gamma test?



The sensitivity is higher than that of the skin test. It will identify cattle in the earlier stages of infection and likely pick up some infected cattle the skin test has missed. The downside is that this test is more likely to produce false positive results

than the skin test (which has a rate of 1 false positive in 5000 cattle tested.)

It is likely that a lot of cattle that are positive on the test do not show lesions, the reasons for this are threefold:

- The test detects the disease early on when no lesions will be present
- Slaughterhouse inspections will not always find lesions even though they are present
- 1 in 30 cattle tested will be falsely positive on the test

### **Food eaten by badgers on farm**

Knowing that badgers are a factor in the spread of Bovine TB within the UK it is important to try and reduce badgers visiting your farm. Badger proofing feed storage should help with this. They have a preference for high energy, starchy and sugary feeds.

- Cereals (Wheat, Oats, Barley, Maize)
- Cattle cake or concentrates
- Bread waste
- Protein Pellets or nuts
- Molasses or mineral licks/buckets
- Maize or cereal silage (but not grass silage)

Cereals may also attract badgers if stored in pheasant feeders or other areas on the farm.

### **Survival of TB Mycobacterium**

Cattle in the advanced stages of TB can shed *M.bovis* in their faeces. This can then survive in stored slurry for up to 6 months. On pasture *M.bovis* can survive in cattle faeces for up to 2 months in summer and 5-6 months in winter. The temperatures of composting manure reach up to 50°C which will kill the bacteria. However, parts of a manure pile may not get to this temperature, so survival could occur in some parts of the pile.

With this in mind:

- Store Slurry for 6 months before spreading
- Ensure solid manure is thoroughly composted and stored for 30 days before use
- Wait 2 months before grazing/making silage on fields that have slurry/manure spread on them
- Avoid using slurry contractors or shared equipment

### **Where can I find more info?**

This newsletter was blatantly plagiarized with permission from Andy Robinson. For more information on testing and other TB topics visit his website. [www.tbknowledgeexchange.co.uk](http://www.tbknowledgeexchange.co.uk)

All the best! Will

***\*PLEASE NOTE CHANGES BELOW TO MEDICINE ORDERING/DELIVERY TIMES STARTING FROM 13<sup>TH</sup> AUGUST 2018\****

#### **\*\*\* NEW MEDICINE DELIVERY/COLLECTION TIMES \*\*\***

	<b><u>ORDER BY</u></b>	<b><u>VAN ARRIVAL TIME</u></b>	
Royal Wootton Bassett	9.00am	10.00am delivery	Due to an increased demand for medicine delivery to branch surgeries, please note we have updated our order / delivery times. These now include our new branch surgery at Nailsworth, which opened on 13 <sup>th</sup> August 2018.
Pewsey	9.00am	11.00am delivery	
Avenue Vet Centre	12.30pm	14.00pm delivery	
Wotton-under-Edge	12.30pm	14.30pm delivery	
Nailsworth	12.30pm	15.00pm delivery	
Tetbury	12.30pm	15.30pm delivery	
Yate	from	12.30pm (next day)	
Bradley Stoke	from	12.30pm (next day)	
Thornbury	from	12.30pm (next day)	