

# Inconclusive TB reactors in England

Clear



IR



Reactor



## What are inconclusive reactors (IRs)?

IRs are cattle which react to the skin test, but the reaction is too small to definitely be considered a reactor and too large to definitely be considered clear.

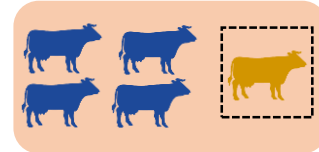
## IRs found in TB free herds



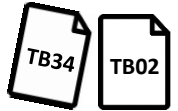
TB free herd under no restrictions



IR found at next test



Herd under TB02 restrictions and IR under TB34 restriction



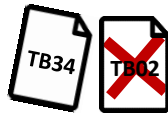
When one or more IRs are found, the herd is initially put under automatic whole herd movement restrictions (TB02) until the test result is reviewed by APHA. A restriction notice (TB34) is also issued and you need to isolate the IR on farm until it is re-tested. The IR cannot move off the holding except under a licence issued by APHA. What happens next depends on the **three year rule**:

## Three year rule

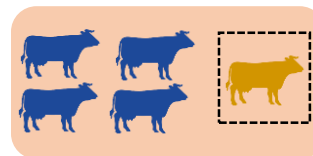
If the herd hasn't had a breakdown in the last three years (i.e. officially TB free status hasn't been lost).



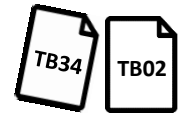
TB02 herd restrictions lifted: free to trade and move cattle. BUT TB34 restrictions on IR stay in place until IR retested.



If the herd has had a breakdown in the last three years (i.e. officially TB free status has been lost) and other APHA criteria are satisfied.

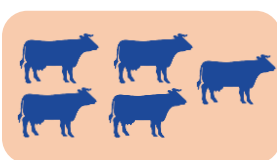


Herd under TB02 restrictions and IR TB34 restrictions stay in place until IR retested



## IRs found in TB-restricted herds

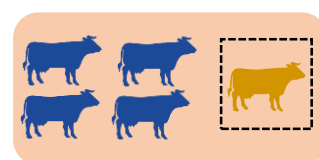
For IRs found where herd movement restrictions are already in place, a TB34 isolation notice is served on the IR. You must isolate the IR from the rest of the herd promptly. IRs identified at a Short Interval Test (SIT) will be re-tested at the next SIT. If the herd doesn't require a further SIT, only the IR will be re-tested but the whole herd movement restrictions will stay in place.



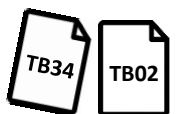
Herd under TB02 restrictions because previous reactors found



IR found at next test



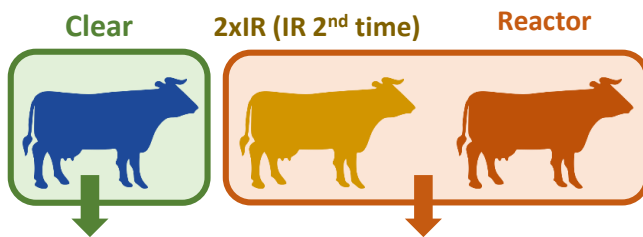
Herd under TB02 restrictions and IR under TB34 restriction



Note : This sheet explains the standard procedures followed by APHA when dealing with IRs and cannot account for every situation. For specific cases, different actions may be taken and APHA will discuss this with you.

## Further testing of IRs

IRs will need to be re-tested. What happens next depends on the results of the retest. See below:



### Clear (resolved IR) ✓

IRs which test clear at the next test are classed as 'resolved IRs'. In the High Risk Area, Edge Area (and in TB breakdown herds in the Low risk Area), these animals are **restricted to the farm for the rest of their life**, although they can move to a slaughterhouse or Approved Finishing Unit (AFU) under a licence issued by APHA.



If the herd was TB free (OTF), but under restrictions due to the three year rule: once the IR is resolved any herd restrictions are lifted.

### Not clear ✗

If the animal does not test negative, either because it is a reactor or an IR again (2xIR) it is classed as a reactor and removed and slaughtered with compensation paid.

If the herd was TB free (OTF), this will result in normal breakdown procedures (60 day short interval tests etc.).

If the herd was already under restrictions, this may result in additional 60 day tests.



### Removing restrictions using the gamma test

To release resolved IRs from life-long restrictions, you can request interferon-gamma blood testing through your private vet at your own cost with prior approval from APHA. Alternatively, if the animal is eligible for a government funded gamma test then a negative result will mean life long restrictions on the IR are lifted.



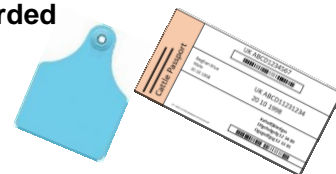
## Private slaughter of IRs

Cattle keepers may choose to send IRs to slaughter (straight to abattoir) at their own expense before the re-test. You must tell APHA and they will need to issue a TB24 license to do this. If you are considering privately slaughtering one or more IRs, please contact APHA to discuss your case so that you are fully aware of the potential consequences and can make an informed decision.

## The risk posed by resolved IRs

Scientific studies in the Republic of Ireland have found that resolved IRs are 12 times more likely to be found as a reactor at their next test (Clegg et al. 2014). They also found that 11.8% – 21.4% of IRs slaughtered **prior to their re-test** after their initial disclosure showed visible lesions that were suspicious of TB at their post-mortem inspection. This is why the movement of resolved IRs is restricted.

**It is recommended that resolved IRs are clearly marked and recorded**



## Where can I find more info?

For more information on IRs visit [www.tbhub.co.uk](http://www.tbhub.co.uk). This sheet was produced as a part of a Knowledge exchange project funded by NERC. For more info and to download the full list of fact sheets visit [www.tbknowledgeexchange.co.uk](http://www.tbknowledgeexchange.co.uk).

## Studies referenced

Clegg, T.A., Good, M., Duignan, A., Doyle, R. & More, S.J. (2011) Shorter-term risk of *Mycobacterium bovis* in Irish cattle following an inconclusive diagnosis to the single intradermal comparative tuberculin test. *Preventive veterinary medicine*, **102**, 255-264.