Reducing the risk of getting bovine TB

We know the COVID-19 virus is a cunning enemy, but bTB is a bacteria and is, if anything, a more devious and tricky opponent

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t's like someone just hit you hard in the stomach," says Paddy, a Munster dairy farmer describing what it's like to 'go down' with TB.

"It restricts you straight away and your entire year is upset with it."

It's a measure of the dread that these two letters can generate that we have obscured Paddy's identity while quoting him verbatim.

"The compensation for the reactor animal is OK, but the real difficulty it brings is the disruption to selling stock. Especially the bull calves, in my situation. And you are left wondering how many stock will be lost before the outbreak is cleared."

If eliminating TB was just a difficult problem, it would have been eliminated by the TB Eradication Programme,

bTB breakdowns are primarily caused by;

- Infection from cattle remaining in the herd from a previous bTB episode.
- Introduction through purchased animals.
- Infection from wildlife, particularly badgers.
- Infection from direct or indirect contact with neighbouring cattle.
- Infection from the handling/housing/ slurry environment.

which began in 1954. In fact, it is what is known as a 'wicked problem' which means it is extraordinarily complex, with many inter-related factors leading to disease.

However, farmers are not helpless and there are specific steps you can take to significantly reduce the risk. Remember, Bovine TB (bTB) is an infectious disease and you have the power to reduce the risk of this disease spreading to your cattle.

The bug causing bTB is slow growing, evades the body's immune system and is difficult to diagnose. Infected cattle in your herd can appear healthy, but may be harbouring the disease and spreading infection.

Once infection gets well established in a herd, it can be tricky to eliminate. It is therefore critical to identify risk factors within the herd and remove them as soon as you can.

Preventing the introduction of bTB into your herd is crucial. Some people think that TB will never happen to them, but the fact of the matter is that there will be over 4,000 new TB breakdowns this year and the majority of them will be in herds that have been clear for some time. So, this advice applies to every herd in the country.

TB testing

High-quality bTB testing reduces the threat to your herd. If an infected animal is present, the earlier it is identified and removed, the better. Leaving infected animals behind at the test will cause two problems – one short-term and one long-term.

The short-term issue is that the infected animal is more likely to spread disease to other cattle. This can make the difference between having a small breakdown or a bigger one.



A more ominous longer-term threat is that the longer an animal is infected, the more likely it will become 'anergic' or incapable of reacting to the TB test.

This will mean that 'sleeper' infected animals can go on to infect other animals within the herd for years.

"We had a cow who was judged clear over a number of tests and when she was eventually sent to the factory, she was identified as positive there," says Paddy.

"It's that kind of surprise that makes TB such a frustrating disease." Ensure good-quality bTB testing facilities are available, especially a crush of appropriate size. Sufficient light and shelter are important. Provide the vet with any assistance required in order to do the job well.

Insist that your vet tests carefully; clipping, injecting and measuring any reactions exactly – a difference of even 1mm is important in diagnosing TB, i.e differences that you cannot easily see. The technique on both days of the test is equally important.

Reduce the risk of infection being left behind

Getting a good skin test is really important, but a small proportion of infected animals can pass it. Thankfully, research has helped to identify which clear animals are higher risk. So, cull any cattle that have ever



tested 'inconclusive' even if they subsequently re-tested negative.

Cull any cattle that were in a herd during a previous bTB breakdown – even if you are just exiting a bTB breakdown, you can immediately start a replacement policy that will have all of these animals removed within four or five years.

Keeping a young herd is always beneficial in terms of bTB, as older animals are less likely to react to the test if infected.

Reduce the risk of introducing cattle that are infected

Source cattle from herds that have not had a bTB breakdown in recent years. Ask to see evidence of a herd's bTB Herd History Risk. This is the risk category given to every herd in the country.

It has three parts. The first part is a letter, which is either 'C' indicating the herd is not currently restricted for bTB, or 'D' indicating it is a dealer herd. The next part is a number from 0 to 10. This indicates the number of years that a herd has tested clear for bTB.

The third part is a number in brackets, which indicates the number of bTB breakdowns a herd has had in the last 10 years.

So for example, C 10 (0) means a herd is clear of bTB for the last 10 years and has had no breakdowns in the last 10 years. While knowing the risk category can really help, even having a recent bTB test date means cattle are less likely to be infected. The date of the last TB test is displayed on the mart board and movement certificates.

It is also good practice to isolate purchased animals and carry out a post-movement bTB test to protect the rest of your herd.

Buy from fewer herds and maintain a closed herd if possible.

Reduce the risk from badgers

Look for evidence of badger activity on your land. Badger setts are mostly found in hedgerows, ring forts and riverbanks. Good farming land has the capacity to host badgers.

Large spoil heaps at the sett entrance are a tell-tale sign that it is a badger sett. They are capable of moving quite large stones.

Badger setts have openings of 25cm wide, whereas a rabbit burrow may have a wide opening, but the chamber itself quickly narrows. The presence of hay-like bedding beside a sett entrance is a definite sign that it is a badger sett.

Badgers root in pasture searching for food; they often overturn cow pats. They also form small pits about 12cm in diameter called snuffle holes. Badgers create well-worn paths about 15 to 20cm in width. These are easiest to see in the winter and spring. In wet areas around gates or drinking troughs, you may see badger pawprints. The prints consist of a broad kidney-shaped pad with four or sometimes five toes visible in a straight line.

A latrine pit is where a badger digs a small hole and defecates into it and leaves it uncovered. Latrines are generally found close to a sett. Badgers have a territory that can range about 500m to 1km from the main sett, so even though you may not have setts on your land, badgers may well be active there.

If badger setts or latrines are present on grazing land, you should fence them off with electric fencing. Do not feed cattle concentrates spread on the ground. Feed cattle in raised troughs and avoid spilling feed on the ground, as badgers may consume it and contaminate any leftovers.

Use raised drinking troughs and badger-proof farm buildings by covering the lower part of access gates to sheds so they can't get through.

If you see evidence of badger activity on your land, contact the wildlife officer at your local regional veterinary office or use the app, available at www.bovinetb.ie.

Reduce risk of neighbourhood spread Ensure boundary fences are well



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maintained to stop nose-to-nose contact with cattle from another herd. Avoid mixing groups of cattle that are normally managed on separate land fragments, as this can spread infection from a small group within the herd to the whole herd.

Reduce your risk through biosecurity

Some picture biosecurity as the boot dip at the parlour entrance, but biosecurity is all about keeping disease out of your farm or eliminating it if present. If you take steps to improve biosecurity on your farm, you will reduce the risk of bTB and many other diseases.

In addition to the cattle and wildlife measures above, ask yourself how can bTB be brought onto your farm? Through people, equipment or poor fencing? What steps have you taken to reduce this risk? Do you ask contractors to clean and disinfect slurry or manure spreaders before they come onto the farm? Do you clean and disinfect shared machinery after each use? The bTB bacteria can survive in the environment for several months.



Effective cleaning and disinfecting of any areas where bTB-infected cattle were kept is essential and will reduce the risk of infecting other cattle.

Breeding to reduce the risk of bTB

When selecting bulls for breeding, choose ones that are genetically more resistant to bTB.

The Irish Cattle Breeding Federation (ICBF) now provides a score of genetic resistance to bTB for bulls. Farmers can use this to reduce the risk of bTB through selecting the right bull and increasing the level of genetic resistance in the herd.

See also Genetic\resistance for bTB and Liverfluke Infection – ICBF.

Deer

If you live in an area of the country, such as Wicklow, where deer are of concern, you can participate in the smart deer project by downloading the app from https://sites.google. com/ucd.ie/smartdeer-ire land/ home and contributing to population knowledge locally.You can also liaise with your neighbours, formulating community deer management action plans, and if appropriate, apply for a Section 42 licence from NPWS (Department of Housing, Local Government and Heritage) on 01-888 2000 or at wildlifelicence@housing.gov.ie.

For more information, see www.bovinetb.ie for links to information videos and leaflets.

