

Feed & water troughs

Manage cattle feed and water

- Restrict badger access to feed stores, troughs and mineral licks

For more information see Five Actions on the TB Hub website: <http://www.tbhub.co.uk/biosecurity/protect-your-herd-from-tb/>



Fig.1: Example of a standing feed trough with a badger exclusion mechanism fitted (i.e. rollers)

How does this measure work?

The presence of supplementary food in low troughs or tipped on the ground at pasture may increase the likelihood of cattle and badgers sharing feed. Using troughs and preventing badgers from easily gaining access into cattle feed and water troughs can reduce opportunities for TB transmission. Badgers have been observed climbing into troughs to exploit cattle feed or to drink, and have even been known to defecate in feed troughs. Farmers can take a variety of measures to deter badgers from easily climbing into feed troughs. These include raising feed/water troughs, using mechanisms such as rollers or outward sloping surfaces, or tighter management in cleaning, emptying or covering troughs when not in use. Troughs that have been adapted to deter badgers can benefit farmers who feed their stock at pasture with cake/concentrates or minerals. Troughs that are regularly cleaned and emptied become less attractive and can deter badgers from becoming accustomed to exploiting troughs.

How has this measure been tested?

Hartpury College and the South West TB Farm Advisory Service tested biosecurity measures through the use of raised and roller feed troughs. Trials showed that badgers were successfully prevented from feeding from troughs designed to exclude badgers. See case study A (p.2) and details on the TB Hub website.

Field studies by APHA demonstrated that badgers could gain access to troughs at up to 115 cm, although the number of individuals that could access troughs decreased substantially at heights above 95 cm. Therefore, raising troughs to the highest height suitable for cattle may still reduce the number of visits but it may not prevent access.

Product examples	Approximate Guide Price (£*)
Badger exclusion feed trough (with roller-bars): Trough Leg Height: 915 mm Trough Dimensions: 2440 mm Long x 786 mm Wide x 230 mm Deep	£265 - £280
Bespoke trough solutions (covers, panels, etc.) for variety of situations.	Local contractor rates or re-use of existing farm items/materials
* Prices listed exclude VAT and cost of fitting (as of January 2017)	

Examples of biosecurity measures: Feed & water troughs

Case study A:

Hartpury Agricultural College farm includes sheep, deer, beef and 290 dairy cows. The farm is in a TB High Risk Area and educates students on how to protect herds from TB. Having assessed TB risk in all areas the farm undertook a series of steps including cattle husbandry and biosecurity measures. Raised roller feed troughs were trialled in paddocks at pasture. Students carried out video monitoring projects, which observed badgers being unable to climb into the feed troughs. Further tests are being carried out to thoroughly test the feed troughs over a full feeding season.



Fig. 2: Feed trough with roller-bars

Case study B:

During an APHA field study badgers were frequently recorded drinking from a low metal water trough on pasture (Fig 3a) even though a natural water source was available nearby. This behaviour may be most frequent in the summer months. The farmer replaced this water trough with a taller concrete trough, approximately 90 cm high (fig 3b). During a second period of camera surveillance no attempts were made by badgers to gain access to the new trough.



Fig. 3a: Badger drinking from original low water trough



Fig. 3b: Replacement water trough

Measure recommendations

Free standing feed troughs with a height, mechanism or shape designed to prevent badger accessing cattle feed/water:

- The lip height for troughs without any adaptations should preferably be over 90 cm in height, although the ability of livestock to access the trough may dictate its minimum height. It should be noted that this may deter badger visits but may not prevent them.
- The lip height for troughs with adaptive mechanisms may vary having been field tested during the manufacturers' development process. Ask for details on trough testing from the manufacturer.
- Troughs should not be placed where badgers can climb adjacent structures to gain access.
- Mechanisms should be checked regularly to ensure they are not seized up or blocked.