

Cattle tick: manual inspection of cattle tick carriers

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Animal Biosecurity and Welfare, NSW DPI

This Primefact must be followed when manually inspecting cattle tick carriers for cattle tick.

Cattle tick carriers must meet the NSW cattle tick entry requirements when entering NSW from:

- a property in a tick infested zone
- any property under a biosecurity undertaking, biosecurity direction or relevant regulatory instrument in another State or Territory, that controls or restricts the movement of animals on a property on account of cattle tick

Cattle tick entry requirements may include a manual inspection.

Restraint for inspection

The primary carrier must be restrained to complete the inspection. Restraint techniques must be suitable for the species being inspected.

Unled high risk carriers: crush or race.

Led and manageable primary carrier: crush, race or individual inspection.

Inspection procedure

1. Glasses must be worn for the inspection if the accredited certifier or person conducting the inspection normally wears glasses for reading.
2. Restrain the animal/s. Load unled animals into the crush or race so the heads face away from the person inspecting. This is known as herringbone pattern and will present the primary inspection sites for easy access, and the flank as an option for the secondary site.

3. Visually inspect for any obvious signs of cattle tick as you approach the animal. Take note of any lumps, swellings, bumps and scabs on the skin that may need closer inspection.
4. Manually inspect two primary sites and one secondary site on each carrier. Use fingertips to feel for ticks including any lumps, swellings, bumps and scabs on the skin.

Manual inspection of primary cattle tick carriers

Primary carriers are cattle, deer, bison and buffalo.

Inspection sites

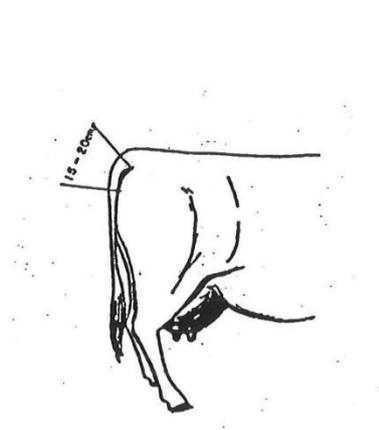
Three sites must be inspected, two primary sites and one secondary site.

- **Primary inspection sites:** tail butt and escutcheon
- **Secondary inspection sites:** dewlap, ear, upper neck or flank

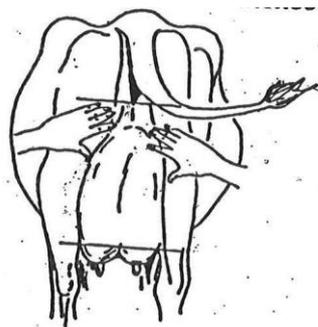
Note: If the carriers have been chemically treated prior to inspection the ears must be inspected.

Primary inspection sites

- a. **Tail butt** - start at the butt of the tail. Use fingertips to turn the hair back on both sides and backwards down the tail for about 15-20cm. Pay close attention to the caudal fold.

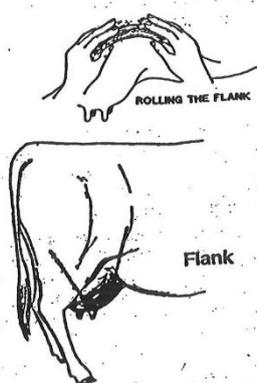


- b. **Escutcheon** - start at the vent down to the scrotum or udder as follows:
 - Using the fingertips run the hand down the escutcheon, moving between the scrotum or udder and the inner hind leg.
 - Claw the fingers so as to have fingernails in contact with the high risk carrier skin. A gentle back ward motion will remove any ticks, scabs, or shells felt with the fingertips.

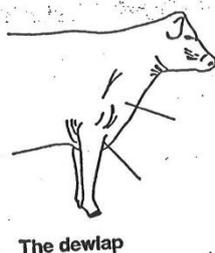


Secondary inspection sites

- a) Flank- part the hair with hands. Use thumbs and forefingers to roll the flank, exposing the skin in a narrow ridge. This opens the hairs so that the skin can be seen



- b) Dewlap - look at the whole of the dewlap facing you. The dewlap can be rolled between thumb and forefinger where it is practical to do so.



- c) **Ear** – run thumb nail along the inside upper edge of the ear, inspect the whole ear, both inside and outside.
- d) **Upper neck** – the upper neck is the area along the top line about 15–20 cm either side of the high point of the shoulder. Turn hair back, moving away from the head of the stock.

Manual inspection of secondary cattle tick hosts

Secondary carriers are animals in the Equidae family (e.g. horses, ponies, donkeys and mules), goat, sheep and camelidae (e.g. alpacas, camels, llamas).

Percentage of carriers that require inspection

The table below provides the number of animals that must be inspected in each consignment.

Species	Percentage of consignment to be inspected
Equine species and camelids	100%
Led sheep and goats	100%
Unled sheep and goats	100% visual and 5% manual inspection

Manual inspection of horses

Take appropriate safety precautions when manually inspecting horses. It is recommended that horses are manually inspected to the girth and only visually inspected back from the girth.

Manually inspect all of the following sites:

Figure 1 – the base of the mane from wither to poll



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Figure 3 – continue down to inspect around the front legs and behind the shoulder/elbow



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Figure 2 – down the neck and chest



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Figure 4 – under the jaw and around the head, including the forelock and ears



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Figure 5 – inside the ears, particularly around the edge



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Manual inspection of goats

Long-haired areas on some goats are not high-risk areas for ticks to attach. For goats, it is often easier to catch the goat and tip it over to conduct the inspection.

Manually inspect all of the following sites:

Figure 1 – inside ears, particularly around the edge and continue down the forehead and face to the muzzle



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Figure 2 – behind the shoulder/elbow



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Figure 3 – inside the edge of the flank, rolling it between fingers



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Figure 4 – run hand down the escutcheon and bare skin around the udder or scrotum



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Manual inspection of sheep and camelids

Woolly areas on sheep and long-haired areas on camelids are not high-risk areas for ticks to attach. For sheep, it is often easier to catch the sheep and tip it over to conduct the inspection.

Manually inspect all of the following sites:

Figure 1 – inside ears, particularly around the edge



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Figure 2 – continue down the forehead and face to the muzzle



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Figure 3 – bare areas of the legs and behind the shoulder/elbow



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Figure 4 – around the base of the tail and down the escutcheon



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Figure 5 – sheep – around the udder or scrotum, especially between the udder or scrotum inside the back legs



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Tick identification

Remove any ticks, scabs or shells using fingernails, place in the palm of the hand for closer inspection.

Undertake a visual assessment to identify if it is a cattle tick using the [Primefact Cattle tick identifying the life cycle stages](#).

If a cattle tick is identified, determine whether the tick is alive. A live tick is one that shows obvious signs of movement or from which body fluids can be expressed.

Where the person conducting the inspection is not the owner or a person in charge of the carrier, show the owner or the person in charge of the carrier the tick.

Place the cattle tick in a specimen jar and retain for positive laboratory identification, if required.

If a cattle tick is found

If a live cattle tick is found on an animal, all cattle tick carriers in that consignment fail the inspection and must not be moved into NSW or from the restricted property.

The Qld Department of Agriculture and Fisheries publication [Procedure for the use of chemical treatment on cattle tick carriers](#) on their website describes the treatment and re-inspection procedure that may be undertaken for primary carriers after an initial failed inspection.

Re-inspection interval

Carriers that have failed a manual inspection must not be reinspected for at least 4 days.

Time limits on moving into NSW or from the restricted property

Carriers must move within 24 hours of meeting all risk minimisation requirements.

Ongoing monitoring post arrival

The person who receives a cattle tick carrier has a general biosecurity duty to take all reasonable and practical steps to prevent or minimise the spread of cattle tick. Actions to discharge this general biosecurity duty could include:

- continuing to monitor the animal/s for cattle tick after it has been moved, and
- isolating, treating or spraying cattle tick carriers after arrival.

More information

- Qld DAF Procedure for manual inspection of high risk tick carriers at: https://www.daf.qld.gov.au/_data/assets/pdf_file/0005/504284/Procedure-manual-inspection-high-risk-cattle-tick-carriers.pdf
- NSW DPI tick webpage at:

<https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/health-and-disease/parasitic-and-protozoal-diseases/ticks>

- General Biosecurity enquiries phone 1800 680 244 or email animal.biosecurity@dpi.nsw.gov.au

Acknowledgments

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