

Recording Tick Scores



Tick resistance is recognised as an economically important production trait in grazing enterprises. Research has shown that variation exists in tick resistance between animals, and that a proportion of this variation is due to genetic differences.

The submission of tick scores to BREEDPLAN will be used in the development of a Trial EBV for tick resistance once sufficient data has been collected.

WHY SHOULD TICK SCORES BE RECORDED?

Meat and Livestock Australia Estimate the annual cost of ticks to the Australian beef industry to be approximately \$146M.

Ticks are costly in terms of both loss of production as well as handling and treatment of infected animals.

Resistance to cattle tick is heritable in both Tropical Composite and Brahman cattle as validated by the Beef CRC and previous research by CSIRO at Belmont Research station.

WHEN CAN TICK SCORES BE RECORDED?

Tick Scores can be taken in conjunction with 200, 400 and or 600 day weights. As a rule-of-thumb, there should be an average tick count (over at least 15 animals) of at least 20 ticks per side. Otherwise there will not be enough variation between animals for BREEDPLAN to calculate EBVs.

HOW DO I SCORE AND RECORD TICKS?

Score using the approved BREEDPLAN 1-5 method. See Table 1 below.

Table 1: Recording Tick Scores

Score	Resistance	Estimated number of observable ticks per side*
0	Clean	No observable ticks
1	Very High Resistance	10 or less
2	High Resistance	11-30
3	Average Resistance	31-80
4	Low Resistance	81-150
5	Very low Resistance	Over 150

* VERY IMPORTANT:

- Only ticks over 4.5 mm diameter should be included in the score (no seed ticks).
- 'Side' is an entire side of an animal including inside of flank and legs.

WHAT CONSIDERATIONS SHOULD BE MADE BEFORE TICK SCORING?

- Do not score after any recent tick treatment such as dips, pour ons or injectables.
- For valid comparisons, score all animals either quickly after yarding or spell all animals overnight before scoring, as animals shed ticks on yarding.
- As the score is an estimate, rather than actual count, it is important to use the same assessor for all animals within a management group.

HOW DO I SUBMIT TICK SCORES?

Tick Score measurements should be submitted directly to your BREEDPLAN processing centre. The trait code for Tick Score is TS.

Tick Score measurements are usually submitted electronically via either:

- a BREEDPLAN compatible herd recording computer program.
- the BREEDPLAN compatible Microsoft Excel template.

If you are unable to submit the Tick Score information using these methods, please contact staff at your BREEDPLAN processing centre to discuss the alternatives available.

For more information regarding how to record tick resistance information, or EBVs in general, please contact staff at Tropical Beef Technology Services (TBTS).



Figure 1. An Animal with Very Low Tick Resistance (Tick Score 5)