

fact sheet



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Haemonchus Dipstick Test

An on-farm decision support tool for Barber's Pole worm infection in sheep

Barbers Pole worm (*Haemonchus contortus*) is a blood-feeding parasite of the abomasum of sheep. Its ability to reproduce at a rapid rate by laying many eggs and its fast lifecycle means disease outbreaks can occur rapidly in a mob, resulting in cases of severe anaemia and sudden death.

The Haemonchus Dipstick Test was developed by the Australian Sheep Industry Cooperative Research Centre (Sheep CRC) as a decision support tool to help producers decide when to treat (drench) for Barber's Pole worm. Test kits produced by Ancare are available for sheep producers at their local CRT store.

The Test

The Haemonchus Dipstick Test detects blood in sheep faeces to identify whether Barber's Pole worm is present, and to help determine the level of infection and the amount of damage being caused. The test is conducted on faecal samples pooled from ten to twenty fresh dung pats. Following dilution and a boiling step, the sample is tested with a reagent strip. The amount of colour change that occurs is read on a scale calibrated to different infection levels.



Reading the Haemonchus Dipstick Test result

Many factors may influence a producer's decision to drench for barber's pole worm. These factors include:

- Season
- Region
- Recent rainfall
- Class of sheep
- Previous pasture use
- Length of time on pasture
- Worm egg count results, etc.

The Haemonchus Dipstick Test is intended to be used as another element in the producer's decision making process (ie. it is a 'decision support tool'). The test should be used regularly (eg. weekly) in high risk periods, but may be used less frequently when conditions are less favourable for Barber's Pole worm disease (eg. monthly). As the test is not a direct test (it measures blood in the faeces, not actual worm numbers) the results should be interpreted with reference to trends in test results conducted over the preceding weeks.



Test Instructions

Each test kit contains detailed instructions on how to conduct the test. The following bullet points summarise the test process:

In the paddock

- Collect freshly passed dung from the ground (not per rectum as this may result in blood in the sample). Collect about 20 pellets from at least 10 to 20 dung pats. Collect one pellet from separate fresh pats until half a cup is collected.

Back in the shed

- Add 20mL of fresh water to a 120mL container
- Add approximately 10mL of dung by displacement (stop adding dung once 30mL mark reached)
- Let stand for 10 mins (up to 60 mins for hard faecal samples)
- Mix to tomato-sauce consistency, then add more water to the 100mL mark (1 in 10 dilution)
- Measure 500mL water into a jug
- Add 10mL of dung solution (making a 1 in 500 dilution) and mix
- Pour diluted mix into a 5mL tube (about 2/3 full), and tighten lid
- Place in boiling water for 20 minutes
- Remove from boiling water and allow to cool (stand in cold water for 3-5 minutes)

Reading the test stick

- Dip the test stick into the cooled boiled solution for 3 seconds, and withdraw
- Read against colour chart exactly 60 seconds from when the stick was first immersed
- Score – 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5
- Add 0.5 to the score if dung samples were soft

Test Results

The following interpretations for each score are intended as a guide only. Trends in test results collected over several weeks should be established for each mob tested. A diary of test results should be kept to detect changes in test scores. 0.5 should be added to the score if the dung samples being tested are soft or runny.

- Score = 1
 - Low level of blood in dung
 - Low level of infection
 - Retest at next planned time depending on season etc.
- Score = 2 – 2.5
 - Higher level but may be normal for the mob
 - Retest in one week
- Score = 3 – 3.5
 - High level of blood in dung
 - Expect significant level of disease in mob
 - Treat with an effective anthelmintic
- Score = 4 +
 - Severe disease / deaths likely to occur
 - Immediate treatment is required

Retesting

Wait for two weeks after drenching. Affected mobs may have high scores for 1-2 weeks post drenching. If you are unsure of the Barber's Pole infection status of your sheep despite using the test, send samples to lab for a worm egg count.

Ancare Technical Services can be contacted on 1800 001 973 if you need help with the Haemonchus Dipstick Test.