

When to *WormTest* and when to drench

Why check worm burdens in sheep?

Checking worm burdens with a *WormTest* is essential for correct and timely drenching decisions. The result is healthy sheep, without unnecessary drenching. *WormTests* are the best basis for drenching decisions even though signs such as weight loss, a tail in the mob, pale skin and eyes, bottle-jaw and deaths may be apparent, as other diseases also show these signs. Signs occur well after production losses from worms are occurring in the mob; therefore, *WormTests* give early warning to prevent significant production losses.

Drenching based on *WormTests* is also the most cost-effective ongoing option for worm control in this region, as unnecessary drenching of large mobs is expensive in both drench and labour costs. Even in remote areas *WormTest* results should be received within a few days, so *WormTest* first if you are concerned about worms.

How are worm burdens tested?

Most *WormTests* are done through a laboratory. However, worm egg counts (but usually not larval cultures) can be done by producers if they have the equipment and skills.

What samples should be collected for *WormTests*?

Sheep do not need to be yarded for a *WormTest*. Collect fresh dung from the paddock. Obtain *WormTest* kits or sample collection details from laboratories or resellers in your area. Follow the instructions provided in the kit.

- Avoid delays in transit (when worm eggs can hatch) by collecting and posting early in the week.
- Ensure samples are kept cool, but not refrigerated, before sending. Include a frozen ice brick wrapped in newspaper with the samples when transporting in hot weather.

Which mobs and how many should have a *WormTest*?

In this region, all mobs that may need drenching should be *WormTested* separately, rather than using one mob to represent some or all other mobs. Paddock differences in this region have a significant effect on resulting worm burdens, even if the sheep are of a similar class. Also, mustering and giving an unnecessary drench is expensive.

When should *WormTests* and drenches be routinely done?

In this region drenches should not be routinely given. Always conduct a *WormTest* before drenching sheep (except when introducing sheep and in unusual cases of predicted extensive flooding, see below). Don't forget the rams.

Include a larval culture with the *WormTest* in areas or on properties with a history of barber's pole worm, or when there is higher than normal summer rainfall, or where animals show signs of anaemia (pale inside eyelids) or bottle jaw (swelling under the jaw).

Drench Decision Guide—Pastoral region

WormTest:

- Sheep showing signs that suggest a worm infection
Scour worms: dark scours (or sometimes clotted dung instead of pellets); weight loss; death.
Barber's pole worm: anaemia (pale inside eyelids and gums); 'bottle jaw' (swelling under the jaw); lagging or collapse when mustered; death.
Note: A *WormTest* can save an unnecessary drench if signs are from another cause, however, if severe anaemia and bottle jaw are noted, an immediate drench for barber's pole worm is usually warranted. A concurrent *WormTest* should also be carried out (take samples before drenching) to confirm the diagnosis, as similar signs may occur in this region from the blood parasite *Mycoplasma ovis* (formerly called *Eperythrozoon ovis*) and other causes.
- Prior to weaning lambs
Lambs are the most susceptible mob on the property: if only one drench is ever needed on a property it

will be the weaning drench. If monitoring worm egg counts and productivity over a number of years shows drenching at weaning is not required on your property, only *WormTest* again at weaning if the conditions have been wetter than usual.

- Before mustering for management events
As sheep are mustered infrequently in this region, it is good to conduct a *WormTest* before mustering for routine activities such as shearing or crutching, rather than drenching 'just in case'.
- 6 weeks after rain that has resulted in a green pick of annual grasses and herbage
Generally, a single fall of rain won't cause a significant increase in worms in this region. However, follow up rain sufficient to allow annual grasses to germinate and persist will also favour development of worm larvae; sometimes these can increase to a serious infection within a month or two.
- 4–6 weeks after sheep have been congregating in small areas
When sheep are restricted to smaller areas, such as when paddocks are flooded, they are forced to re-graze areas more quickly and heavier than normal. The pasture becomes more contaminated with worm eggs and if conditions have favoured egg hatching, the sheep will have higher worm infections.
- Each 2–3 months for sheep on bore drains/irrigation channels when there is little other paddock feed
In very dry times or drought (when worms are otherwise not expected), sheep preferentially graze green pick along drains and channels. This can lead to higher levels of worm contamination along the drains, and infection and illness in the sheep, compounded by the generally poorer condition of the sheep in these times.
- November/December and February in north-west Victoria and the western Riverina
In years when winter and spring have been much wetter than usual check whether a first summer drench (November/December) and/or second summer drench (February) could be required. Under these conditions, consider a *WormTest* when the pasture is haying off and again in February.
- In southern Queensland, if autumn and winter were wet and the spring and summer is wet or likely to be wet, *WormTest* each 4–8 weeks (depending on the amount of rainfall) until the season dries out.

Drench with a short-acting drench if:

- This is a new mob (or rams) being introduced to the property
Use the guidelines presented on page 9, 'How can drench-resistant worms be kept out of your property?' Sheep coming from properties with liver fluke should also be treated with triclabendazole.
- Predicted extensive flooding is expected to isolate and restrict sheep for some weeks
Drench (without a prior *WormTest*) prior to the flood arrival. Consider a long-acting product only if sheep are likely to be isolated for more than 6 weeks and they are in a summer rainfall area and ground conditions are wet. Also consider a fly preventative treatment and then move sheep to higher paddocks.
- The mob's *WormTest* result is equal to or above the threshold figures in the table below for the class of sheep and the type of *WormTest* result.

Table 1. Threshold worm egg counts at and above which sheep should be drenched in the Pastoral region

Class of sheep	No culture or culture has less than 60% barber's pole (i.e. mostly scour worms)	Culture has more than 60% barber's pole
Ewes (dry to mid-pregnancy) or wethers	400 epg	800 epg
Ewes pre-lambing	300 epg	300 epg
Sheep under 18 months or rams	300 epg	500 epg

When choosing the drench to use, refer to the next section in this program: 'Managing drench resistance'.

For nodule worm, use a drench containing either a benzimidazole (BZ) or a macrocyclic lactone (ML) group.

The WormBoss website has a section on drenches where you can search on drench names, drench groups, or the parasite you wish to target. www.wormboss.com.au/drenches