

## GOATS QUESTIONS

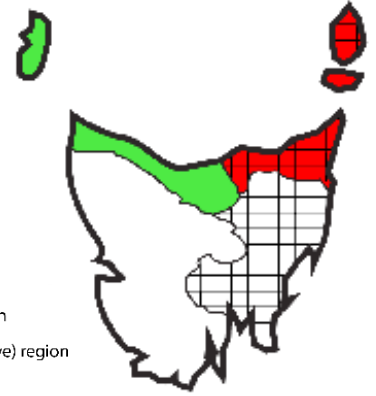


**INSTRUCTIONS:** Follow the 'GO TO' letter or number on the right for each answer. Only answer the questions to which you are directed. When you are directed to a letter, this is the final **recommendation** (shown over the page).

START HERE



<b>1</b>	<b>Are these goats showing signs<sup>3</sup> suggesting a worm infection?</b>	<b>GO TO</b>
	• They have scouring and/or weight loss	<b>A</b>
	• They have anaemia/bottle jaw/lethargy	<b>B</b>
	• There are no obvious signs of worms	<b>2</b>
<b>2</b>	<b>Is it currently during November to February?</b>	
	• Yes	<b>C</b>
	• No	<b>3</b>
<b>3</b>	<b>What class and management stage are these goats?</b>	
	• These are adult goats in autumn or winter about to graze new fodder crops/perennial pastures that are being kept low worm-risk for weaners.	<b>D</b>
	• These are kids about to be marked	<b>E</b>
	• These are kids about to be weaned	<b>F</b>
	• These are weaners/young goats to 18 months old	<b>G</b>
	• These are does just before kidding	<b>H</b>
	• These are does prior to marking	<b>I</b>
	• These are does between marking and weaning	<b>J</b>
	• These are bucks in the 7 weeks prior to mating	<b>K</b>
	• None of the above - these are dry or pregnant does; wethers; or bucks not prior to mating	<b>L</b>



- High rainfall (prime lamb) region
- Medium to low rainfall (extensive) region
- Summer rainfall region  
Note: This is an extension of the medium to low rainfall (extensive) region

## <sup>1</sup>Guidelines for worm control treatments

**When using anthelmintic products in goats, obtain a veterinary prescription because:**

- Goats require a different dose rate and withholding period to that on the label.
- Many drenches are not registered for use in goats (see exceptions below).

**Victoria:** over the counter drenches can be used if residues are kept below the Maximum Residue Limits (MRL).

**South Australia:** cattle drenches can be used in goats, but pour-on formulations should be avoided.

**When giving all treatments**

Follow the product labels or veterinarian's instructions. Dose to the heaviest goat in the group. Calibrate equipment to ensure the right dose is delivered with the right procedures. Do not mix drenches unless the label states they are compatible. Check and comply with withholding periods and export slaughter intervals.

**Choosing treatment options on your property**

Use these principles together, where possible:

1. Use drenches tested to be most effective on your property and either multi-active products or more than one active concurrently (up the race with one and then the other); if drench effectiveness is unknown, conduct a *DrenchCheck* after drenching.
2. Use short-acting treatments—reserve long-acting products for specific purposes or high worm-risk times.

For more details read the drench resistance section in the WormBoss Worm Control Program.

**Check effectiveness of long-acting treatments**

Use only under veterinary prescription.

*WormTest* with a culture at 35, 60 and 90 days after treatment.

If *WormTest* results are 100 epg or above, drench resistance is likely. Drench immediately with an effective short-acting drench with a different drench group to the long-acting treatment. Seek veterinary advice on the further use of this product. If *WormTest* results are less than 100 epg, then treat with an exit drench at 100 days after the long-acting treatment was given.

Seek veterinary advice if *WormTests* are positive at or before 60 days.

**Primer and exit drenches**

These help to slow drench resistance to persistent treatments.

**Protection period of persistent treatments for goats**

(Goat times are unknown, but likely much shorter as goats metabolise the drenches faster)

Mid-length: 7–28 days. Long-acting: 91–100 days.

NOTE: The protection period against susceptible black scour worm with a long-acting moxidectin injection is 49 days in goats, but is not set in goats.

**Use a primer before long-acting treatments**

Primer drenches (effective short-acting treatments that do not include the drench group in the long-acting treatment) should be given concurrently with all long-acting treatments.

**Use an exit drench after all mid-length and long-acting treatments**

- Treat with an 'exit drench'—an effective short-acting treatment that does not include the drench group in the mid-length or long-acting treatment. Also called a 'tail-cutter' drench.
- Give this at 42 days (mid-length) or 100 days (long-acting) after the treatment was given.
- *WormTest* 4–6 weeks after the exit drench.

Anytime that you are concerned that the persistent treatment is not providing protection, *WormTest* immediately and seek veterinary advice regarding drench resistance.



## GOATS

### RECOMMENDATIONS

**INSTRUCTIONS:** Read the **recommendation** that you have been directed to from the Drench Decision Guide questions, plus the information in the other three green boxes.

**A** *WormTest* now. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 300 epg, then *WormTest* again in 3–4 weeks<sup>2</sup>.

If results show scour worms are not the cause of the scouring/weight loss, seek veterinary advice.

**B** *WormTest* now and request a larval culture. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 300 epg, then *WormTest* again in 3–4 weeks<sup>2</sup>.

If results show barber's pole worm is not the cause of the anaemia, seek veterinary advice.

**C** In late November or December (typically when the grass is haying off), give all goats a 'first summer drench': an effective short-acting combination treatment<sup>1</sup>. This may coincide with marking or weaning. Then *WormTest* all goats 6–8 weeks after the first summer drench. Give a second summer drench (an effective short-acting combination drench<sup>1</sup>) in these situations:

- On perennial pastures in all regions or high rainfall regions or on irrigated pastures, if egg count exceeds 100 epg.
- In the summer rainfall region where does are not on perennial pastures, if egg count exceeds 500 epg.
- In the low rainfall zone, if the pasture was green beyond Christmas or if *WormTest* results in spring were 600 epg or above.

**D** Treat with an effective short-acting drench<sup>1</sup> before they go onto the low worm-risk fodder crop/perennial pasture. Graze the pasture for up to 30 days only to ensure no further contamination with worms occurs.

**E** No treatment is required at marking (unless this is first summer drench time) if kids are developing normally and putting on weight. Instead, drench the kids at weaning time. However, if their mothers need a drench at marking (e.g. scouring and in poor condition) also drench the kids. Use an effective short-acting drench<sup>1</sup>.

**F** If drenched at marking *WormTest* before weaning. If egg count exceeds 200 epg treat with an effective short-acting drench<sup>1</sup>. If not drenched at marking, then treat at weaning with an effective short-acting drench<sup>1</sup>. Weaning may coincide with the first summer drench. *WormTest* again in 3 weeks<sup>2</sup>.

**G** Give a first summer drench in December (this may coincide with marking or weaning). *WormTest* at these times<sup>2</sup>:

- 3 weeks after the weaning drench.
- Just prior to the second summer drench (late January/early February).
- Otherwise, *WormTest* each 3–4 weeks until 1 year old

- Treat weaners in the high rainfall region if egg count exceeds 200 epg.
- Treat weaners in the low to medium and summer rainfall region:
  - In January/February (second summer drench time) if egg count exceeds 100–150 epg.
  - In Autumn/Winter/Spring if egg count exceeds 300 epg.

Generally use an effective short-acting drench<sup>1</sup>, but in early to mid winter consider a long-acting product<sup>1</sup> in high worm-risk conditions<sup>2</sup> and follow the guidelines for long-acting drenches.

**H** Treat all does with an effective short-acting drench<sup>1</sup>. Consider using a long-acting product<sup>1</sup> in high worm-risk conditions<sup>2</sup>.

**I** Generally, a drench at marking is not required, except:

- If does are scouring and in poor condition (less than condition score 2.5) treat with an effective short-acting drench<sup>1</sup> at marking.
- If marking coincides with the first summer drench time.

**J** • In low/medium/summer rainfall regions if does were not treated at marking, treat at weaning with an effective short-acting drench<sup>1</sup>. If does were drenched at marking, *WormTest* 6–8 weeks after marking.

- In the high rainfall region with does that will stay on perennial pastures, *WormTest* just prior to weaning. Treat with an effective short-acting drench<sup>1</sup> at weaning only if results are 200 epg or above.
- Does in the high rainfall region not staying on perennial pastures will not require a drench at weaning.
- Weaning may coincide with the first summer drench.

**K** • *WormTest* bucks about 7 weeks prior to mating. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 200 epg.

- At mating, treat with an effective short-acting drench<sup>1</sup>.

**L** During March to October, *WormTest* adult mobs each 4–6 weeks (4 weekly in the wetter months, 6 weekly in the drier months) and treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 300 epg. High counts (>600 epg) in April/May on goats in the paddocks to be used later for kidding indicate high pasture contamination of those paddocks and that does may require a long-acting treatment pre-kidding.

### <sup>3</sup>Signs of worms

**Scour worms** (black scour worm [*Trichostrongylus* species]; brown stomach worm [*Teladorsagia circumcincta*]; and others [incl. *Nematodirus*]): dark scours; weight loss; death.

**Barber's pole worm:** anaemia (pale inside eyelids and gums); 'bottle jaw' (swelling under the jaw); lethargy, lagging or collapse when mustered; death.

NOTE: Other diseases and poor nutrition can cause similar signs. Consider seeking veterinary advice.

### <sup>2</sup>High risk worm conditions

Goats can sometimes be rapidly re-infected with worms, causing illness and death within 2 weeks of a drench. In these situations (i) check at least weekly for visual signs of barber's pole worm; and (ii) conduct a *DrenchCheck*. To reduce this risk, prepare low worm-risk pastures.

For more information on regional worm control plans, drenches, tests, checks and worms visit [www.wormboss.com.au](http://www.wormboss.com.au)

Future events cannot reliably be predicted accurately. The University of New England ("UNE") and Meat & Livestock Australia Limited ("MLA") make no statement, representations or warranties about the accuracy or completeness of, and you should not rely on any information relating to the WormBoss Drench Decision Guide for Goats ("Information"). UNE and MLA disclaim all responsibility for the Information and all liability (including without limitation liability for negligence) for all expenses, costs, losses and damages you may incur as a result of the Information being inaccurate or incomplete in any way for any reason. Published October 2016 © The University of New England and Meat & Livestock Australia Limited 2016