

## QUESTIONS

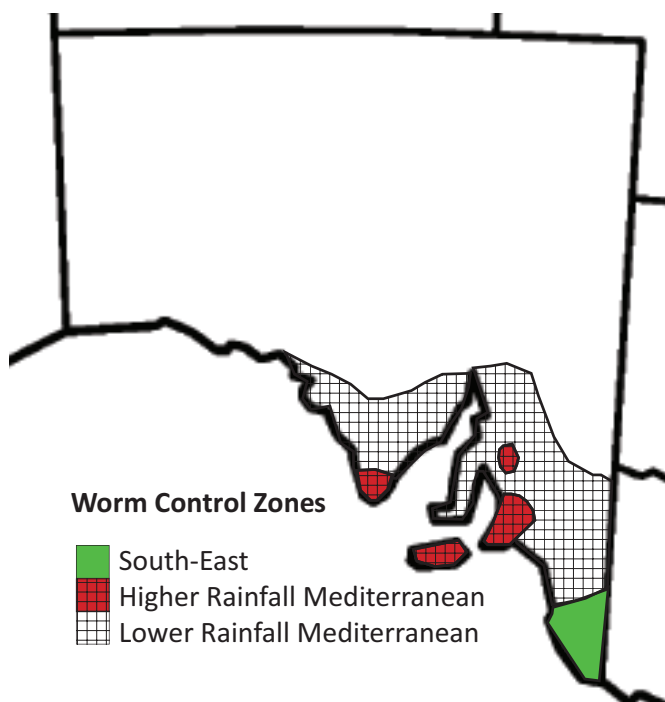
**INSTRUCTIONS:** Follow the 'GO TO' letter or number on the right for each answer. Only answer the questions to which you are directed. When you are directed to a letter, this is the final **recommendation** (shown over the page).

### START HERE



<p><b>1</b> Are these sheep showing signs<sup>2</sup> suggesting a worm infection?</p> <ul style="list-style-type: none"> <li>• They have scouring and/or weight loss</li> <li>• Lethargy and deaths have occurred and sheep are showing anaemia (pale inside eyelids and gums)</li> <li>• There are no obvious signs of worms</li> </ul>	<p><b>GO TO</b></p> <p><b>A</b></p> <p><b>B</b></p> <p><b>2</b></p>
<p><b>2</b> What class of sheep are these?</p> <ul style="list-style-type: none"> <li>• Young sheep to 18 months</li> <li>• Rams</li> <li>• Wethers</li> <li>• Ewes</li> </ul>	<p><b>3</b></p> <p><b>4</b></p> <p><b>5</b></p> <p><b>5</b></p>
<p><b>3</b> Which stage applies to these young sheep?</p> <ul style="list-style-type: none"> <li>• These are lambs prior to lamb marking</li> <li>• These are lambs from marking to weaning (at about 12–14 weeks from the start of lambing)</li> <li>• These are lambs not weaned at 12–14 weeks, but are still on the ewes till turnoff</li> <li>• These are young sheep after weaning until the end of their second (hogget) winter</li> </ul>	<p><b>C</b></p> <p><b>D</b></p> <p><b>E</b></p> <p><b>F</b></p>

<p><b>4</b> Are these rams in the month before joining?</p> <ul style="list-style-type: none"> <li>• These are rams in the month before joining</li> <li>• These are rams, but it is not in the month before joining</li> </ul>	<p><b>GO TO</b></p> <p><b>G</b></p> <p><b>5</b></p>
<p><b>5</b> Which stage or zone and time of year apply to these ewes, rams or wethers? (choose the first applicable option)</p> <ul style="list-style-type: none"> <li>• These are ewes that will lamb within 4 weeks</li> <li>• These are ewes before lamb marking</li> <li>• These are ewes from lamb marking to weaning (or 6–8 weeks after marking if the lambs are being kept on them till turnoff)</li> <li>• The South-East zone in late November/December (this may coincide with weaning time for late lambing ewes)</li> <li>• The South-East zone from January until pre-lambing (or till spring for rams and wethers)</li> <li>• The Higher Rainfall Mediterranean zone from early summer until pre-lambing (or till spring for rams and wethers)</li> <li>• The Lower Rainfall Mediterranean zone from pre-harvest to pre-lambing (or till spring for rams and wethers)</li> </ul>	<p><b>H</b></p> <p><b>I</b></p> <p><b>J</b></p> <p><b>K</b></p> <p><b>L</b></p> <p><b>M</b></p> <p><b>N</b></p>



### <sup>1</sup>Guidelines for worm control treatments to slow drench resistance

#### When giving all treatments

Follow the product labels. Dose to the heaviest sheep in the mob or groups. 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 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 multi-active combinations where possible; if drench effectiveness is unknown, conduct a *DrenchCheck-Day10* after drenching.
2. Use short-acting treatments—reserve long-acting products for specific purposes or high worm-risk times.
3. Rotate drench groups each time a mob is drenched and for each paddock.

For more details read the drench resistance section in the WormBoss worm control program, South Australia.

#### Long-acting treatments

These are rarely required in South Australia. Also, resistance to long-acting treatments has been reported on properties in South Australia. To be safe, you should seek expert advice before incorporating them into your worm control program.

## 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** If these are lambs, seek veterinary advice immediately, otherwise *WormTest* now. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 250 epg. *WormTest* again in 6 weeks<sup>2</sup>.  
If results show scour worms are not the likely cause of the scouring/weight loss seek veterinary advice.

**B** Treat now with a drench<sup>1</sup> effective against barber's pole worm, and at the same time collect samples and submit for a *WormTest* with a larval culture. If signs do not improve in 4–7 days seek veterinary advice.

**C** No treatment is required now. Treat or *WormTest* at weaning depending on your zone.

**D**

- South-East and Higher Rainfall Mediterranean: Treat with an effective short-acting drench<sup>1</sup> at weaning.
- Lower Rainfall Mediterranean (there are 3 options):
  1. *WormTest* just prior to weaning (collect only lamb dung). Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 150 epg.
  2. *WormTest* at weaning (collect when the lambs are separated and hold nearby till results are received). Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 200 epg.
  3. Or treat all lambs at weaning with an effective short-acting drench<sup>1</sup> (least-preferred option as many mobs will not need drenching).

**E**

- South-East and Higher Rainfall Mediterranean: *WormTest* each 4 weeks<sup>2</sup> from 12 weeks<sup>2</sup> till turnout.
- Lower Rainfall Mediterranean: *WormTest* at 12 weeks old. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 200 epg (further testing should not be required unless signs of worms become evident).

**F**

- South-East and Higher Rainfall Mediterranean: *WormTest* 4 weeks post-weaning then 4–6 weekly<sup>2</sup>. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 200–300 epg (use 200 if last drench was within a month and 300 if last drench near 2 months ago).
- Lower Rainfall Mediterranean: *WormTest* 6 weeks post-weaning then 6 weekly<sup>2</sup> on green pasture, or 8 weekly<sup>2</sup> on dry pasture, or 10 weekly<sup>2</sup> on crop stubbles. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 250 epg (post-weaning *WormTest*) or 300 epg for later *WormTests*.

**G** Treat rams with an effective short-acting drench<sup>1</sup>.

**H** *WormTest*. Treat with an effective short-acting drench<sup>1</sup> if the egg count exceeds:

- South-East: 75 epg.
- Higher Rainfall Mediterranean: 100 epg.
- Lower Rainfall Mediterranean: 250 epg for early lambing ewes and 150 epg for late lambing ewes.

**I** *WormTest* just prior to lamb marking. Treat with an effective short-acting drench<sup>1</sup> if the egg count exceeds:

- South-East: 200 epg (winter) or 300 epg (spring).
- Higher Rainfall Mediterranean: 200 epg.

In the Lower Rainfall Mediterranean sheep do not require testing or drenching at this time if there are no signs of worms.

**J**

- South-East and Higher Rainfall Mediterranean: *WormTest* just prior to weaning (or about 6–8 weeks after marking). Treat with an effective short-acting drench<sup>1</sup> if the egg count exceeds 200 epg for early lambing ewes and 300 epg for late lambing ewes.

- Lower Rainfall Mediterranean: *WormTest* only if more than 10% sheep are scouring. Treat with an effective short-acting drench<sup>1</sup> if the egg count exceeds 250 epg.

**K** Treat with a summer drench 2–3 weeks after the feed has dried off, but before Christmas. This should be a highly effective short-acting drench<sup>1</sup>.

**L** *WormTest* 6–8 weeks after the summer drench was given. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 80–100 epg. Continue to *WormTest* at 8 weekly<sup>2</sup> intervals and treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 100 epg.

**M** *WormTest* each 8 weeks from when the feed is drying off until pre-lambing. Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 100 epg (or up to 200 epg only during late summer and providing ewes are in good condition).

**N** *WormTest* prior to harvesting. Treat sheep staying on pasture with an effective short-acting drench<sup>1</sup> if egg count exceeds 250 epg. For sheep that will later go on stubble, drench if egg count exceeds 400 epg.

*WormTest* again 10 weeks after the pre-harvest test or when they are coming off stubble (after at least 6 weeks). Treat with an effective short-acting drench<sup>1</sup> if egg count exceeds 250 epg.

### <sup>2</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 can cause similar signs. Seek veterinary advice if *WormTests* do not indicate worms.

### <sup>3</sup>High risk worm conditions

Sheep can sometimes be rapidly re-infected with worms, causing illness and death within 3 weeks of a drench when WECs will still be low or zero. If the onset of scouring, weight loss or deaths is sudden, urgently seek veterinary advice.

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

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