

Central West Local Land Services Barber's Pole Worm



*Please note that this fact sheet deals with **Barber's Pole Worm**, which mainly affects sheep clinically in a warm, wet period in central west NSW. There are other worms that can affect sheep under different conditions, and at different times of the year, for example **Black Scour Worm**. Please contact your District Veterinarian to discuss what worms might be affecting your stock at any given time, and to get some advice specific for your location.*



Local Land
Services

BARBER'S POLE WORM

Barber's pole worms (BPW) are voracious blood feeders and suck blood from the lining of the stomach, causing anaemia.

Affected sheep will have pale gums and conjunctiva (inside the eyelid). They may develop bottle jaws or lack stamina, for example want to lie down when being mustered or moved.

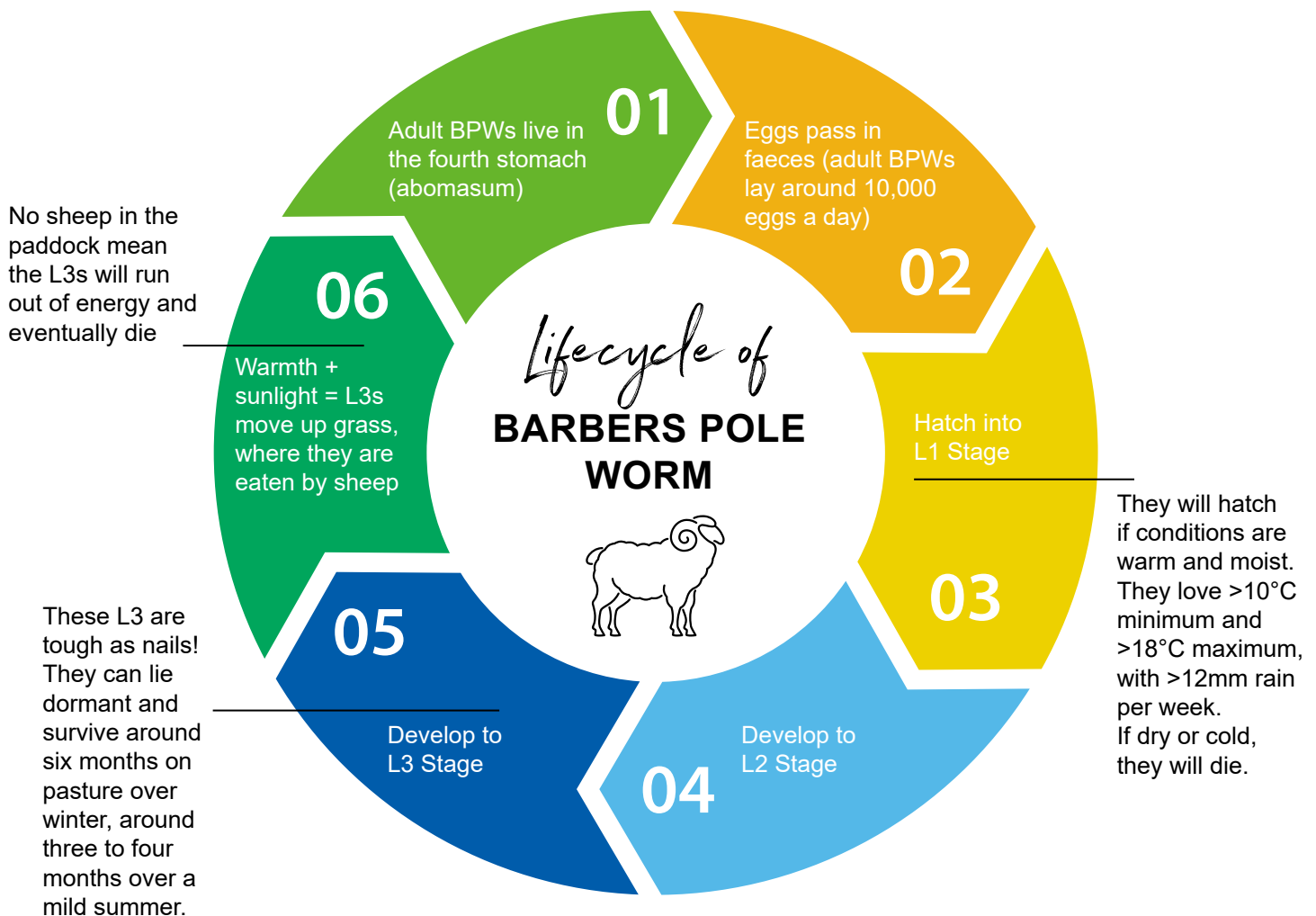
Often the sheep go from looking fat and healthy to dead very quickly with few symptoms.

On post mortem of a freshly dead sheep, you will see the BPW in the fourth stomach (or abomasum) – this is the stomach with the shiny smooth internal lining.

The BPW can be seen with the naked eye

– they are about an inch long and about as thick as a human hair. If you look closely, they look like a barber shop's pole (red and white striped, which is actually their reproductive organs and digestive tract (that is full of blood) wrapped around each other.

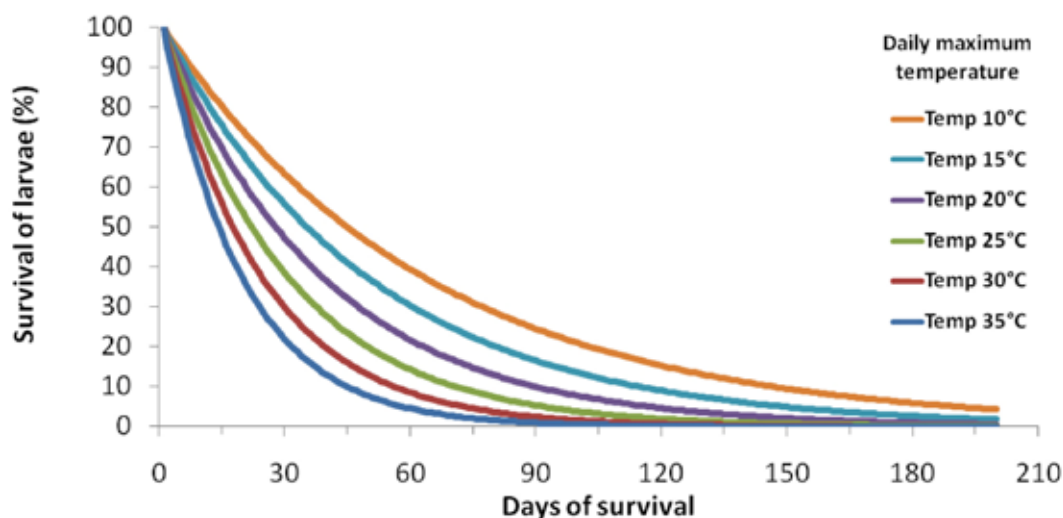
The sheep carcass will be pale – the muscles won't be dark red but will instead be pale pink or white and the sheep's blood will be watery. If the sheep has been dead for longer than about an hour, the worms in the fourth stomach will be digested and you won't see them – all you will see is a dark brown/red liquid in this stomach; this is a tell-tale sign that worms were present when the sheep was alive.





BPW larval survival on pasture at different temperatures

Graph credit | ParaBoss, © Sheep CRC Ltd, The University of New England, Australian Wool Innovation Limited and Meat & Livestock Australia Limited



BPW survive well at 15C – 5% of larvae are still around six months later. And remember if each BPW lays 10,000 eggs per day, the larval contamination of the pastures over a wet summer will be enormous, and 5% of that will still be enough to cause dramas six months later!

Temps of 35C will kill almost all the BPW larvae after around 90 days. Any hotter than this and the BPW die even quicker. This is why we need a good hot summer with bare ground and temps of >35C to break the lifecycle and clean up our paddocks.

BARBER'S POLE WORM TIMELINE

If warm and wet, larval pickup off pasture will be extreme; fecal egg counts (FECs) will be huge and sheep will be dying.

WORMTEST + DRENCH

Larval pickup will reduce, sheep will stop dying, but don't be fooled. L3s will survive winter and emerge in spring.

Larval pickup will increase. Sheep won't be dying, but FECs will be on the rise.

WORMTEST NOW

Nov Dec Jan Feb Mar Apr May Jun Jul Aug Sep Oct

DON'T FORGET ABOUT WORMS



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THE WORMTEST

These are essential! You should start doing them in Spring (Sep/Oct) and continue over summer before drenching. IT IS MONEY WELL SPENT. The Wormtest kits are free from Local Land Services offices. They contain instructions, submission form and 10 empty vials + gloves. Go out into the paddock and fill the 10 vials with fresh, shiny moist poo. If you need to, push the sheep into a corner and hold them there for 10 minutes, then let them walk away, then go in and collect the faeces off the ground. You will be invoiced for the test upon completion (the lab will post the invoice out to you).

Individual count + worm typing	Individual count only
<ul style="list-style-type: none">• The lab counts the 10 vials of poo individually. They then hatch the eggs and tell you what type of worm you are dealing with. In our area it will mainly be BPW (but not always). It is the most accurate and gives you a very clear picture of what is going on. We recommend choosing this option if you have never done a worm test on your farm before, or as your first test in spring.	<ul style="list-style-type: none">• They still count the 10 vials of poo individually, but all they can tell you is that you have Strongyle eggs. They don't differentiate between BPW/Black scour worm/Brown stomach worm. Accurate and recommended if you know what type of worm you are dealing with (eg you've had some samples typed earlier in the season, or we are in the middle of a warm wet summer full of BPW).
Pooled count + worm typing	Pooled count only
<ul style="list-style-type: none">• They pool samples 1-5 and then samples 6-10 and give you two counts (not 10 as for the gold test). They hatch the worm and tell you what worms you are dealing with. This is not as accurate, but cheaper.	<ul style="list-style-type: none">• they pool samples 1-5 and then samples 6-10 and give you two counts. Not as accurate, but cheaper. A good basic test to use if you already know what worms you are dealing with and are doing worm tests regularly and have a fair idea of what is happening on your farm. If you are doing worm tests really regularly, you can be a bit tricky and take samples 1-5 from one mob and 6-10 from a second mob (making sure you label the vials 1-5 and 6-10 and then write on the paperwork which mob is which) – essentially you get two tests for the price of one.

IF YOU'RE NOT SURE WHICH BOX TO TICK, CONTACT YOUR LOCAL DISTRICT VET FOR ADVICE.

WHEN READING THE RESULTS...

The count will tell you how many Strongyle eggs there are per gram of faeces, when viewed down a microscope. These Strongyle eggs may hatch into a Barber's Pole Worm/Black Scour Worm/Brown Stomach Worm - you cannot tell just from the egg count. This is where the TYPING comes in – they hatch the eggs in an incubator over eight days and tell you what sort of worms come out.

The results will give you individual counts, and then an average. When interpreting Wormtests, look at the AVERAGE. Sheep will be losing production when: >350epg in young sheep (weaners) >500epg in adult sheep AND THEY WILL NEED A DRENCH.

If you have asked for typing, it will be displayed at the bottom. Haemochus – Barber's Pole Worm; Trichostrongylus – Black Scour Worm; Ostertagia – Small Brown Stomach Worm.



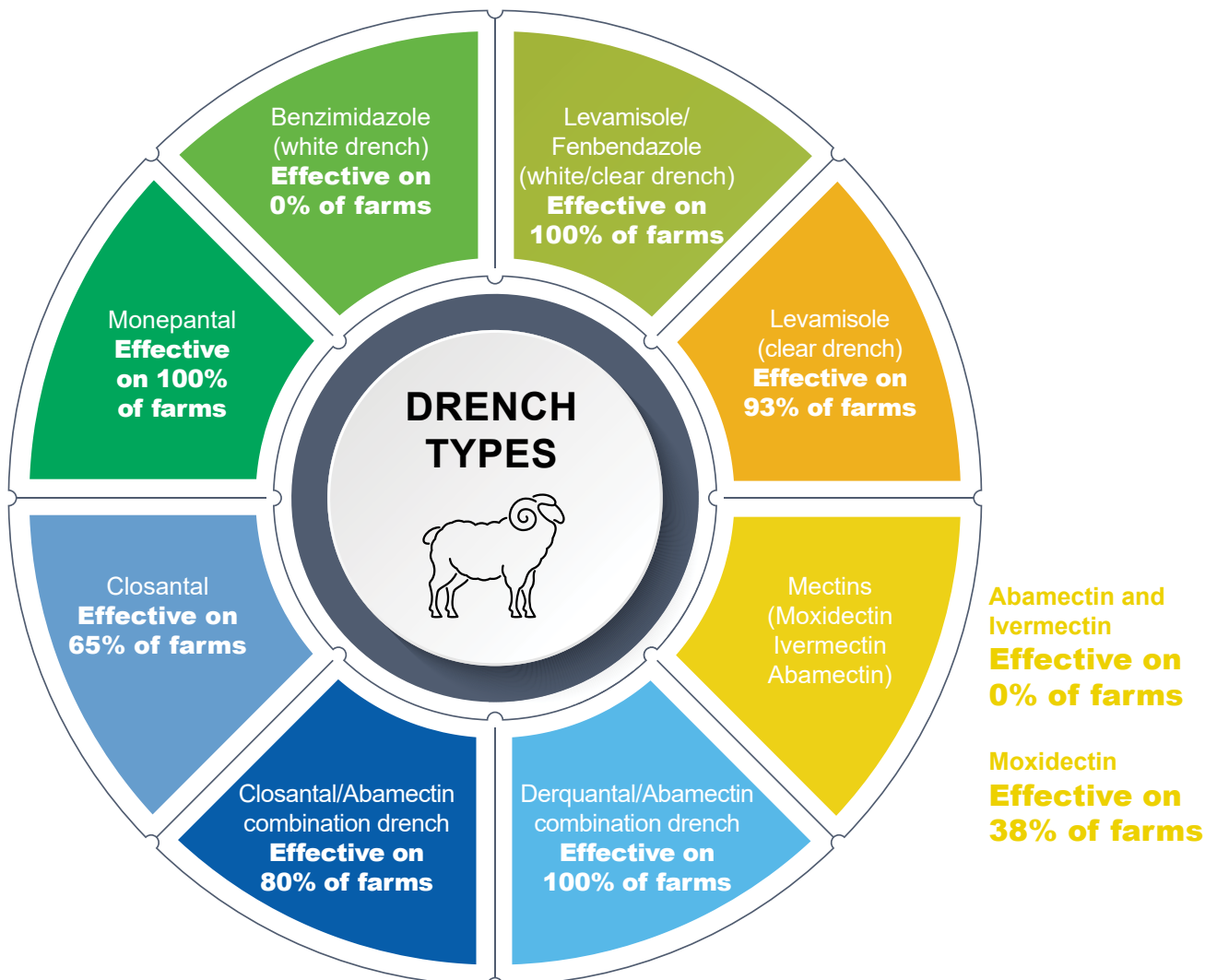
THE DRENCH

Okay, so you have decided to drench, because you did a Wormtest and there were >350epg in your young sheep or >500 in adult sheep.

There are two questions that you need to ask yourself when choosing a drench:

1. Does this type of drench work on my farm?

If you don't know the answer to this you will have to GUESS, which is not good! Instead, call your District Vet and arrange a Drench Resistance Trial on your farm. It will cost you around \$500 and the information will be valid for three to five years. You can then buy drench knowing it will work. Your District Vet will be able to tell you which drenches are working on other people's farms – but this might not be what is happening on your farm.



The drench families and what we know about them in the Central West: Please note that all figures quoted for resistance are for BPW and are based on 10 faecal egg count reduction trials in 2012 and six faecal egg count reduction trials in 2021 across Central West NSW.

THE SECOND QUESTION...

2. Do I have a clean paddock to put my sheep in?

This means a paddock that has been spelled (ie not grazed) for six months over winter, four months over a mild summer, or one month over a hot dry summer.

If the answer is YES – you need to use a knock down (short acting drench) eg: combination drenches containing three or more active ingredients

If the answer is NO – you will need to use a long acting drench. You also may need to use a primer or tail cutter. Call your District Veterinarian for more information on this.

FINALLY...

When drenching with most drenches leave sheep off food for six to 12 hours prior to drenching. Always read the label of the drench thoroughly and follow all labelled directions.

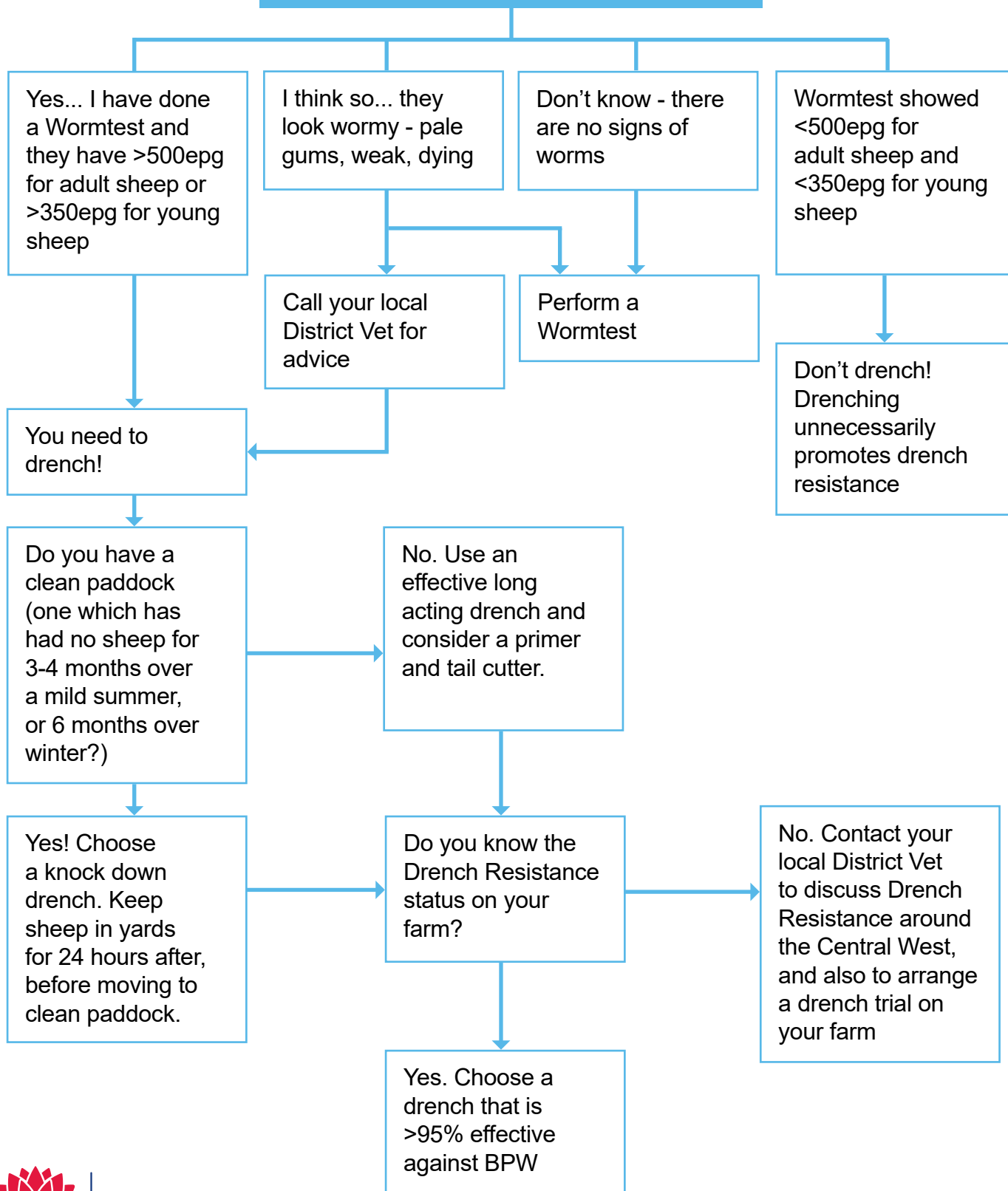
With all drenches - leave sheep in the yards for 24 hours after drenching, with access to water. This will help them to empty out the remaining worm eggs in their digestive tracts before being put out to clean pasture.

In most cases you will not need to drench lambs at foot - they won't be grazing enough to be picking up worm larvae. Most drenches are not registered for use in lambs under six weeks old or 10kg - plus some of the drenches (especially closantal) can be toxic to young lambs if overdosed even slightly.

Drench to the heaviest sheep in the mob. If there is a large spread of body weights, weigh the sheep and draft into two weight categories prior to drenching.



ARE MY SHEEP WORMY?





**Local Land
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For more information contact
www.lls.nsw.gov.au
Phone 1300 795 299