

Hunter



Browser's Bulletin 51:

Barber's Pole Warning

Christmas and the holiday season are here and some of you may be attempting to get away for a couple of days. It is important that you have someone checking on you animals regularly as the onset of disease can occur very quickly, leading to devastating stock losses. A moderate- high infection of barber's pole worms, of say 5000 worms, will drink 250ml of blood per day which is around 5% of a 60kg sheep/goat blood volume. As you could imagine, it is not going to take long for this animal to become anaemic and die.

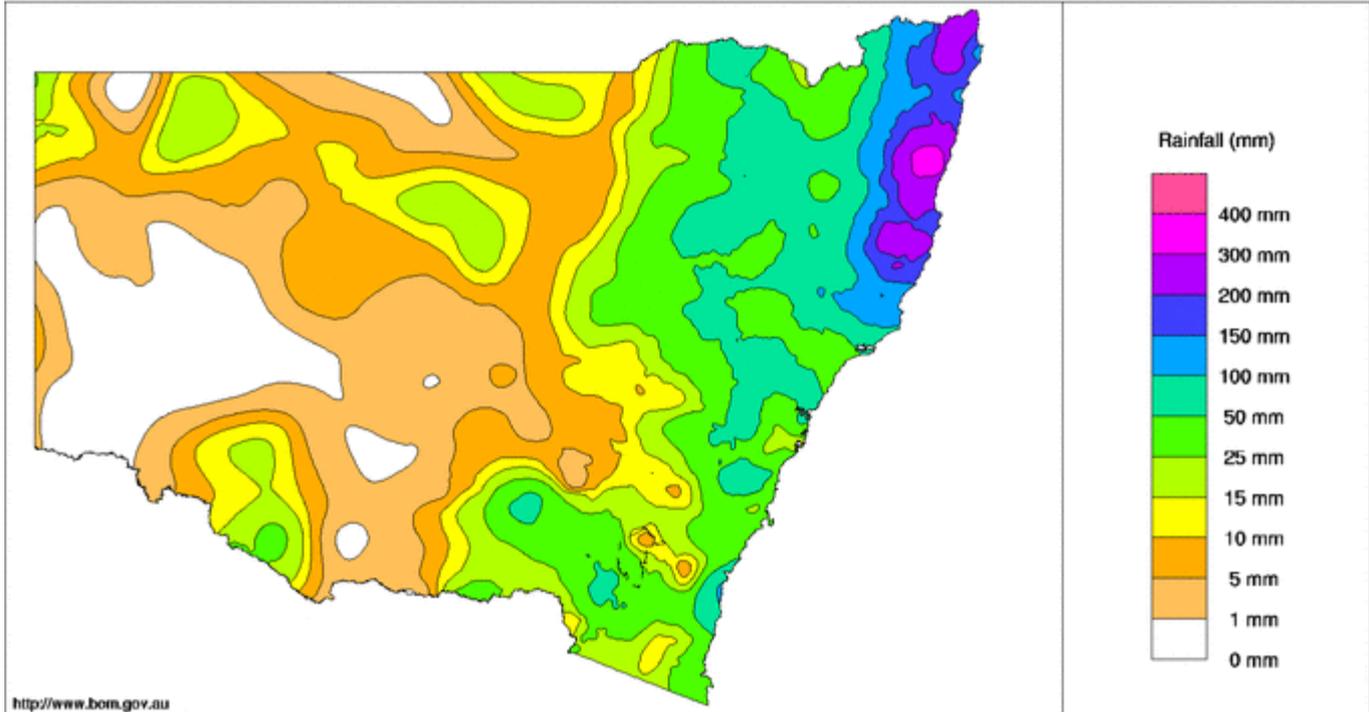
Climate influences development and survival of worm larvae on the pasture. The most crucial factors include daily temperature, moisture, and humidity. I have included rainfall, temperature, and humidity maps for NSW (New South Wales) for the last week, on this Bulletin and for further information on your area you can go to <http://www.bom.gov.au/climate/maps/>

Barber's pole worm eggs survive for 5 days, they need a minimum temperature of >10C overnight and >16-18 during the day to hatch into the larval stage 1 (L1). The ideal temperature range is 25-30 C and >10-15mm/week of moisture. If the temperatures are too cold or too hot, then the eggs will not hatch. The larvae on the pasture can survive a much longer period than the eggs and their survival will also depend on the temperature.

As you can see from the maps below, the moisture and temperatures are ideal for the development of the barber's pole worm lifecycle across a substantial proportion of NSW. Even out west, there is enough moisture for the development of the barber's pole lifecycle, but the larvae on the pasture will not survive for the same length of time as they do on the coast due to the hotter daytime temperatures.

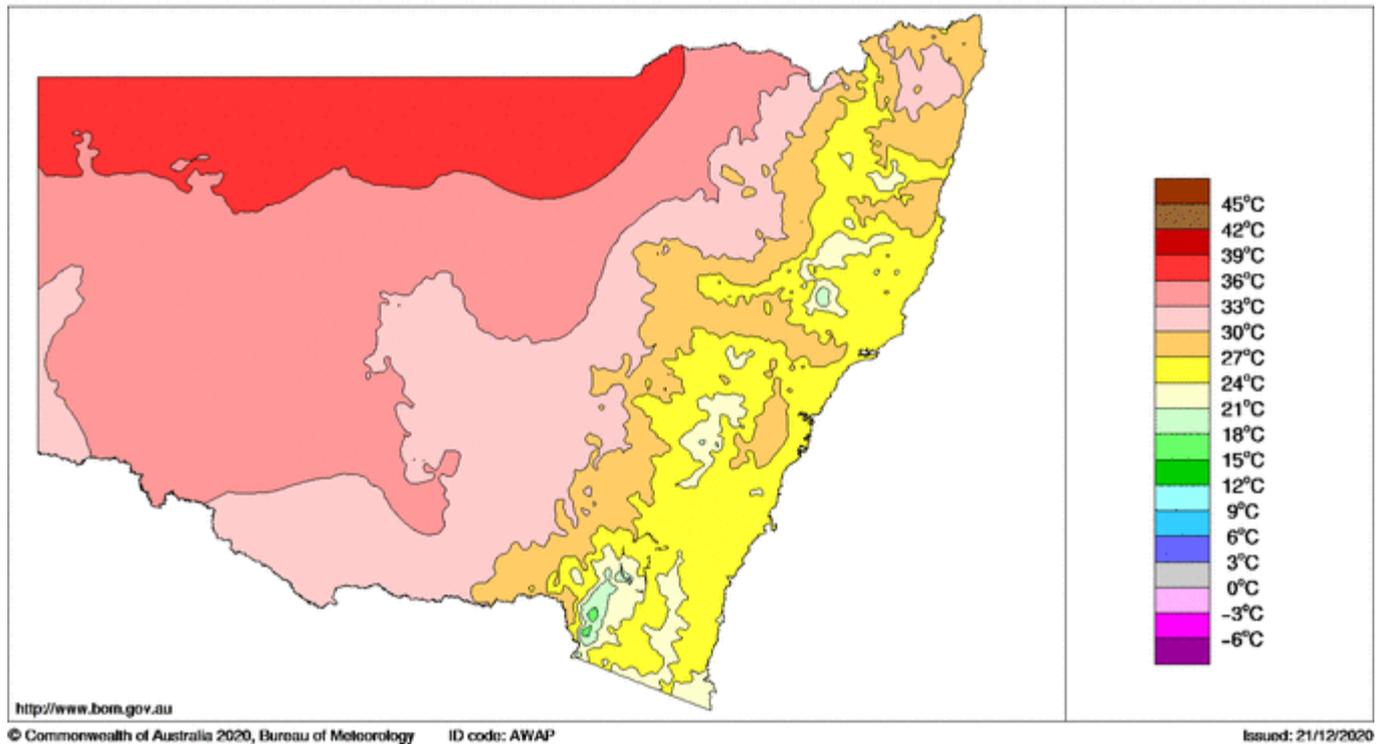
Rainfall in the Week Ending
21st December

New South Wales Rainfall Totals (mm) Week Ending 21st December 2020
 Australian Bureau of Meteorology



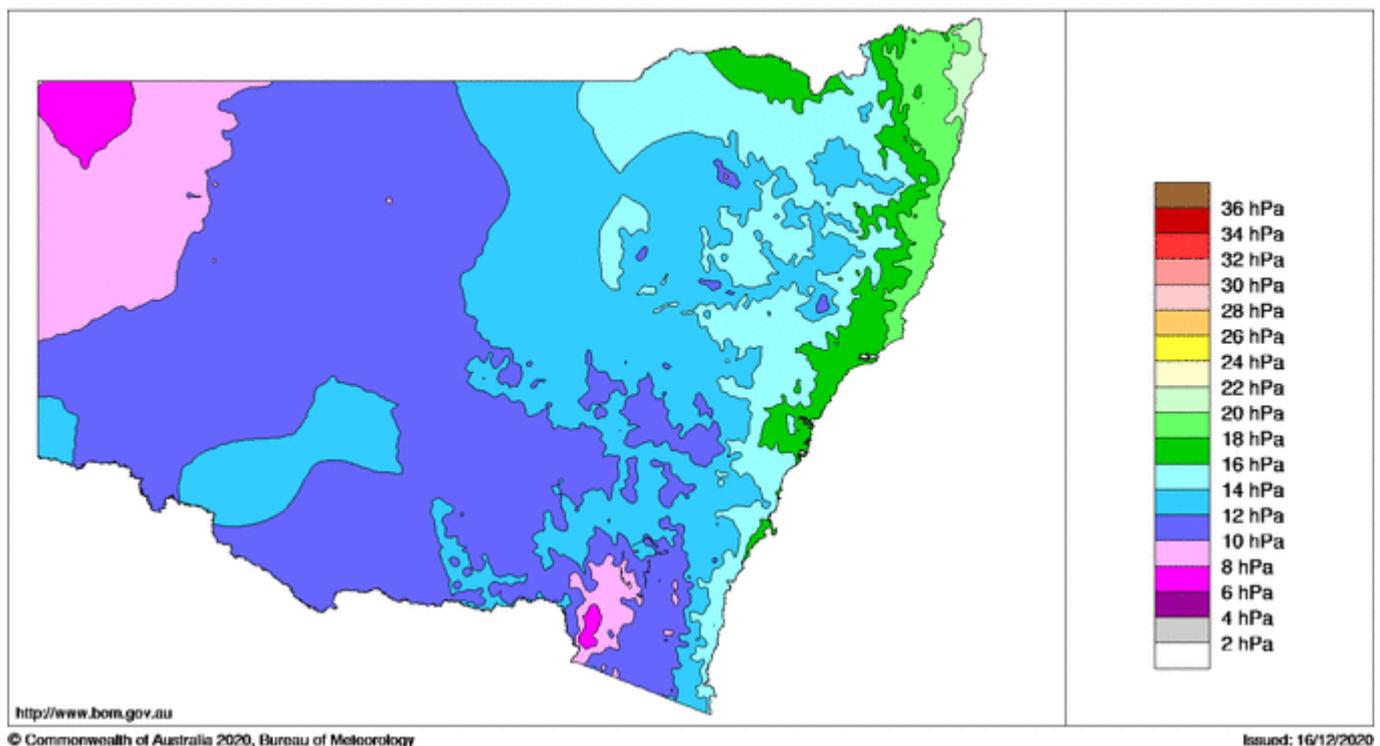
Temperatures in the week ending 20th December 2020 in NSW

Mean Maximum Temperature (°C) Week Ending 20th December 2020
Australian Bureau of Meteorology



Humidity in the Week ending 15th December 2020 in NSW

9am Vapour Pressure (hPa) Week Ending 15th December 2020
Australian Bureau of Meteorology



Another issue that contributes to this being a high-risk period, is all the young stock we have on the ground. These kids are much more susceptible to worms than older stock, especially at weaning. Improving nutrition, particularly an increase in protein intake and energy for adequate growth will increase their immunity. Increase access to browse will limit exposure to the worm larvae on the pasture.

Other measures to decrease exposure to worm larvae on the pasture

- Rest paddocks (this depends on the daytime temperatures; the general rule of thumb is spell paddocks for 3 months in summer and 5 –6 months in Winter. Those Western districts with extreme heat could decrease this spelling time). Resting paddocks allows the larvae to die off and cleans up the paddock. Maintaining safe paddocks for the most at-risk stock (weaned kids).
- Cross-grazing with other species. Remove sheep/goats from the paddock, wait 7 days for the worm eggs to hatch, bring in horses or cattle to vacuum up the worm larvae in the paddock and eat the pasture down.
- Cropping paddocks
- Making hay will reduce pasture contamination
- Prevent close grazing, pasture length should be >10cm as 95% of the worm larvae are on the bottom 5cm of the pasture sward.
- Delayed grazing is sometimes used with smaller goat producers. Goats are housed in the evening and let out mid-morning when the morning moisture has travelled down the pasture sward, along with the worm larvae, and hence decreasing the larvae exposure to the goat.
- Zero grazing is sometimes the only option when it comes to dairy goats
- Maintaining some worms in refugia, this means that some stages of the worm are not treated by the drench, this slows resistance developing.
- Targeted selective treatments, only treating the goats that need to be treated. This can be established by faecal egg counts (FEC), FAMACHA cards and clinical signs
- FECs at regular times
- Drench to the correct dose rate and get veterinary advice and a veterinary prescription. Underdosing increases the rate of anthelmintic resistance
- Cull goats that are always wormy as these are the animals contaminating your paddocks. 20% of the goats/sheep will cause 80% of your issues.
- Breed with bucks that have a good breeding value for low FECs
- Quarantine drench any new introductions (3-4 different drench families)
- Strategic drenches: 1 month prior to kidding as their immunity wanes, at weaning and any goat/sheep clinical signs (FEC, FAMACHA, clinical signs) of internal parasite infestation.
- Check effectiveness of drenches by doing a follow up FEC 10-14 days after drenching and do a drench check every 2-3 years

Internal parasites are a very complex issue and every property is different. So, you have to work out what strategies work best for you. Hopefully, in the early New Year I will be able to do some face-to-face FAMACHA Courses where we can discuss integrated parasite management in much greater depth.



If you have any further questions about internal parasites in sheep and goats, please don't hesitate to send me an email at kylie.greentree@lils.nsw.gov.au



Merry Christmas and all the very best for 2021!

References:

<http://www.bom.gov.au/climate/maps/>

<http://www.wormboss.com.au/sheep-goats/>

Matthews, J. 2009. Diseases of the Goat (4th edition)

© State of New South Wales through Local Land Services 2019. The information contained in this publication is based on knowledge and understanding at the time of writing November 2019. However, because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is up to date and to check the currency of the information with the appropriate officer of Local Land Services or the user's independent adviser. For updates go to www.lils.nsw.gov.au