



Browser's Bulletin 62:

Periparturient Egg Count Rise

As Australia starts to open back up and people are thinking about Christmas holidays, it is important to remind everyone that the barber's pole worm and other worm species populations in your small ruminants (SR) can very quickly explode in ideal weather conditions and cause devastating losses in your herd/flock. Around the Hunter barber's pole worm (BPW) is our most common worm issue and at this time of year, the level of moisture and temperatures are ideal the rapid development of BPW. Sheep and goat owners planning to get away for a long delayed holiday should ensure that somebody is nominated to look after your animals in your absence, and to particularly look out for anaemia caused by BPW and treat them if necessary. BPW burdens in sheep and goats can build up to fatal levels in the 3 or 4 weeks that you are away on holidays.

Periparturient means 'around the time of birthing' and when it is mentioned in this article, I am talking about the month either side of kidding/lambing. I understand that most producers have lambed and kidded already but after a question this week, I thought it was a good idea to remind everyone of this important period in the reproductive cycle of both the SR and the worms.



Immunity to parasites is built up gradually in the first few years of the SR's life, depending on their exposure to internal parasites. The SR's immunity will impact on the number of worms maturing and establishing within the animal, the number of worms remaining in the animal and the number of eggs the female worm will lay. In the periparturient period there is a temporary loss of acquired immunity (to parasites). This loss of immunity is thought to be caused by hormonal suppression of immunity and nutritional stress, resulting in an increase in faecal egg counts and adult worm burdens and consequently a higher level of infection of their offspring.

A periparturient egg rise will result in an increase in parasites and consequently a decrease in milk production, increase possibility of mastitis and consequently has an impact on the growth rate, health, weaning weights and increase chance of mortalities in their offspring.

Factors which have an impact on the periparturient egg count include nutrition, number of offspring, body condition score of the doe/ewe, yearling mothers (first-time mothers) are usually more susceptible to periparturient egg rise, high producing dairy females, over stocking, over grazing, over handling and stress, varies with breed, individual and the seasonal conditions.

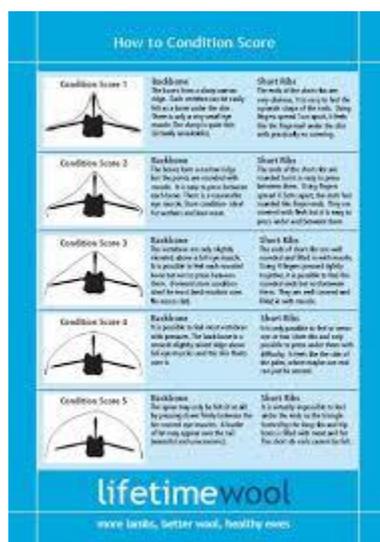
During the Winter, the conditions are often too cold, and the worms will arrest their development (hypobiosis) in the abomasum (4th stomach), but as the weather warms up in spring, they resume their development, and the internal parasites and egg production will explode. This unfortunately coincides with lambing and kidding season.

Wormboss (<http://www.wormboss.com.au/sheep-goats/>) provides a plethora of information on worm prevention strategies and is divided up into different regions throughout Australia. The Hunter is a summer rainfall region in northeast NSW (New South Wales) <http://www.wormboss.com.au/sheep-goats/tests-tools/drench-decision-guide/sheep.php>. In this region it is recommended to give a **strategic drench** (a drench given at a critical time when the SR is expected to be most susceptible to worm infection) one month prior to kidding/lambing in combination with using a low-worm risk lambing or kidding paddocks. This will hopefully provide the does and kids (sheep and lambs) a low-risk paddock that they can graze through to weaning. If you live in another region throughout the State/Country, then please check the Wormboss webpage for recommendations for your region, as strategic drenching 1 month prior to kidding/lambing is not the recommendation for all regions.

Body Condition Scoring your Stock

Practicing Body Condition Scoring (BCS) your stock is an effective management tool that anyone can utilize in their flock/herd. A body condition score is rated from 1-5 with 1 being emaciated and a 5 being obese (see pictures below). It is ideal to have your stock at a body condition score of 3. The body condition score is measuring the fat and muscle over the spine, short ribs and the eye muscle fullness which will estimate the nutritional wellbeing of your stock.

By incorporating 'Body Condition Scoring' into the management of your flock at specific times and altering the food on offer, to tweak the condition of the animals can lead to decreased ewe mortalities, increased ovulation and conception rates, improved placental development, better foetal growth and wool development of the foetus, improved udder development and milk production of the ewe/doe, better fibre follicle growth after birth, improved lamb/kid growth, increased number of twins born and improved ewe/doe recovery to get back into optimum condition score pre-joining.



The Lifetime Ewe Management Courses put on by Australian Wool Innovation Limited have an excellent printable BCS card and recording sheet that you can print off and have as a 'ready-retina' as you BCS your stock. I have included the link. <http://www.lifetimewool.com.au/conditionscore.aspx>.

Ideally, you will be BCS a random sample of 25 head every time the sheep/goats come into the yards, continuously monitoring your stock and practicing your BCS technique. There are crucial times that could certainly improve the productivity of your herd/flock, including pre-joining (8 weeks out to joining to allow for BCS correction if required), scanning and weaning.



If you have other questions and concerns about periparturient egg count rise and body condition scoring, please send me an email on kylie.greentree@lfs.nsw.gov.au

References:

- <http://www.lifetimewool.com.au/conditionscore.aspx>
- Periparturient egg rise of sheep and goats: Susan Schoenian (University of Maryland Extension) <https://www.wormx.info/single-post/resources-periparturient-egg-rise>
- <http://www.wormboss.com.au/sheep-goats/>

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