

Managing internal parasites in your herd

Alpaca CheQA
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Research into gastro-intestinal parasites of Australian alpacas, funded by AgriFutures Australia, the Australian Alpaca Association and the University of Melbourne, has recently been completed. The research has been condensed into a farmer-friendly report called Studies on Gastrointestinal Nematodes ("worms") of Alpacas (2018). It describes worms found in alpacas, their lifecycles, testing, drench types ("actives") and treatment options including dose rates. It also describes how you can perform your own faecal/worm egg counts (FEC or WEC) to monitor your herd. WormBoss is an excellent resource designed for sheep and goats, including regional drench decision guides.

Important factors for alpaca farmers to remember are:

- Alpacas in better body condition are more resistant to worms.
- 90% of worms are produced by 10% of the herd so consider individual faecal egg counts (FEC) on every cria at weaning prior to drenching to identify crias with innate host resistance to worms (crias with high counts at weaning are likely to have higher counts throughout life).
- Control stocking rates 2 dse/ha for every 100 mm rainfall. Parasite larvae live in the lower 2 cm of grass AND need water to survive (dew, rain). Longer pastures enable alpacas to graze away from the worm larvae and reduce worm pick-up.
- Low risk ("clean") paddocks are defined as those spelled for 3 months in summer, 6 months in winter or following hay making/cropping.

How do I know when to drench?

- ALL crias should receive a weaning drench containing at least 2 actives, and then put onto "clean" pasture. Monitor FEC in weaners every 4-6 weeks after weaning and drench according to results.
- All other drenching should occur only if FEC monitoring indicates it:
 - Monitor FEC +/- treat herd in December = 1st summer drench (strategic drench), when
 pasture dried off and worm larvae on grass dead because pasture too dry for survival
 - o Monitor FEC in herd in early February to decide if herd needs 2nd summer drench
 - Monitor FEC in herd (especially weaners) every 4-6 weeks after autumn break to determine tactical drenches through year.
- Under the advice of your veterinarian, young stock may be drenched when FEC > 300 eggs per gram (drench stock over 2 years if > 120 eggs per gram).
- Drench selection depends on farm history, but should contain 2 actives.



• Monitor FEC 10-14 days after *any* drench to monitor drench efficacy: An effective drench is defined as one that produces a 98% reduction in pre-drench FEC.

Quarantine drench all in-coming stock to avoid importing drench- resistant worms

A quarantine drench should contain at least 4 actives including monepantel. Use a multi-active commercial combination and/or single-active products concurrently. Do not mix in same container unless label says you can. Instead, drench all animals with one drench, then all animals with the next drench etc. Make sure every animal swallows every oral drench. Dose to heaviest animal in group if all animals a similar size, or weigh and dose individually.

Hold in quarantine paddock for 3 days to empty out worm eggs. Provide adequate feed and water. Release alpacas into a paddock that is likely to be contaminated with worm larvae from your own alpacas to dilute any left-over imported worms. Worm test 10-14 days after drenching to check treatment worked.

Liver fluke

Liver fluke kill alpacas, so find out if they are a problem on your farm through faecal testing and talking to your local veterinarian and department of agriculture. The liver fluke egg test is different to the standard worm FEC test so ask for fluke test specifically. Fluke lay eggs intermittently, so a single zero count does not rule out liver fluke! Mid-winter control is the minimum requirement if fluke exist on your property. You may also need to treat April/May, Aug/Sept and February depending on animal access to waterways/swampy areas and the specific climatic conditions in any year. For a rough fluke egg test on farm: Macerate alpaca faeces in water, then strain through tea strainer. Dye sediment in strainer with blue dye (for contrast!) and use a magnifying glass looking for golden fluke eggs.