

Parasite control in alpacas

(Hot, dry summers; cold, wet winters)

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General husbandry aims

1. **Breed and feed for worm-resistant alpacas:**

BCS \geq 3 (on AAA scale):

- Alpacas in better body condition are more resistant to worms
- 90% of worms are produced by 10% of the herd
- Individual faecal/worm egg count on every cria at weaning prior to drenching to identify crias with innate host resistance to worms (crias with high counts at weaning likely to have higher counts throughout life).

2. **Control stocking rates - 2 dse/ha for every 100 mm rainfall:**

- If you don't destock, barber's pole worms (BPW, *Haemonchus contortus*) will do it for you!!
- 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!

3. **Low risk ("clean") paddocks = spelled for 3m in summer, 6m in winter or hay/crop:**

- Plan next year's weaner paddock this year.

When do I drench? Don't guess, worm test! (wormboss.com.au)

4. **ALL crias to receive weaning drench containing at least 2 actives (after collected individual faecal samples; see Point 1), and then put onto "clean" pasture:**

- Monitor faecal/worm egg counts (FEC or WEC) in weaners every 4-6 weeks after weaning
- Young stock to be drenched when FEC > 300 epg if only scourworms in larval cultures
 - If > 60% BPW in larval cultures, drench young stock when FEC > 600 epg.

5. **Faecal egg count +/- 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:**

- Young stock to be drenched when FEC > 300 epg (drench > 2yo if > 120 epg)
- Drench selection depends on farm history, *but should contain 2 actives*.

6. **Faecal egg count herd in early February to decide if herd needs 2nd summer drench:**

- Young stock to be drenched when FEC > 300 epg (drench > 2yo if > 120 epg)

- Drench selection depends on farm history, *but should contain 2 actives*.

7. **Monitor FEC in herd (especially weaners) every 4-6 weeks after autumn break to determine tactical drenches:**

- Takes 3 weeks for ingested worm larvae to mature in the alpaca and start producing worm eggs.

Have I got a worm problem and/or drench resistance on my farm?

8. **Faecal egg count if ill-thrifty: scouring, losing weight (> 5% weight loss in last 4 weeks), anaemic:**

- Wormiest alpacas are weaners and lactating females
- Get autopsies done on dead alpacas: BPW can be seen in distal C3 with magnifying glass
- Tapeworm segments are *NOT* significant *IF* the alpaca is healthy.

9. **FEC 10-14 days after any drench to monitor drench efficacy:**

- Effective drench > 98% reduction in FEC eggs per gram.

10. **Resistance to drenches will occur but you must manage it:**

- Use drenches most effective on your property: ideally those that are at least 98% effective, as shown by a drench test. Especially important for strategic summer drenches in winter rainfall regions
- Better to use a *combination of drenches from 2 or more different families* when drenching
- Use short-acting drenches. Reserve use of long-acting products for specific purposes and high worm-risk times of the year
- Rotate among all effective drench groups each time herd is drenched
- Calibrate drench guns, dose to heaviest in mob (or split mob if large weight range), follow label instructions
- If only have a small herd, test all animals and only drench those with high FEC.

(Compared with sheep: leave % of herd undrenched to maintain refugia – residual worms dilute drench-resistant worms).

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

11. Drench should contain at least 4 actives including monepantel (Zolvix®):

- Use 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.

12. Hold in quarantine paddock for 3 days to empty out worm eggs. Provide adequate feed and water.

13. 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.

14. Worm test 10-14 days after drenching to check treatment worked:

- For long-acting drenches, check again at 6 weeks + larval culture
 - E.g. if use closantel, should have 0 epg BPW, but scourworms may be present.

What are “actives”? Different classes/families of drenches!

Resistance to one drench in a family usually means resistance to all drenches in that family:

1. **BZ** = benzimidazoles = white drenches
2. **LEV** = levamisole, morantel = clear drenches
3. **IVM/ML** = macrocyclic lactones = mectins
4. (Organophosphates)
5. **CLOS** = Salicylanilides = closantel
6. **MPL** = Neonicotinoids = monepantel (Zolvix®)
7. Spiroindoles = derquantel (+ abamectin = Startect®)

NONE REGISTERED FOR USE IN ALPACAS = USE AT OWN RISK

Alpaca parasite plan when warm and wet all year

1. Monitor FEC on a monthly basis all year:

- Longer intervals if dry and/or cool spell > 4 weeks
- < 10°C will kill off larvae/eggs of BPW on pasture.

2. If cold winter (Tablelands) ...

Strategic drench in winter with ML:

- Closantel no good here because does not kill adults that have burrowed into gut wall
- < 10 °C will kill off larvae/eggs of BPW on pasture

- OR in spring ± February based on FEC with closantel as *suppressive* drench
- Long-acting drench will suppress worms for 4-6 weeks

3. Check animals for anaemia every time yarded

- FAMACHA card to identify anaemic animals.

4. Apply other principles listed on Page 1.

5. Liver fluke - any fluke are not acceptable – mid-winter control the minimum:

- Fluke egg test different to worm FEC test: Ask for fluke test specifically
- Fluke lay eggs intermittently so a zero count does not rule out liver fluke!
- May need to treat April/May, Aug/Sept and February
 - Less metacercariae in May-July
 - Most metacercariae Sept-Dec
- Rough test on farm
 - Strain faeces through tea strainer, dye sediment with blue dye
 - Magnifying glass looking for golden fluke eggs.

Want comprehensive information on liver fluke in alpacas? See *Cria Genesis Liver Fluke information sheet.*

USE GOOD HUSBANDRY TECHNIQUES. KEEP GOOD RECORDS. WRITE DOWN TREATMENTS/MATING DATES/MEAT WITHHOLDING TIMES.

NO PRODUCTS ARE REGISTERED FOR USE IN ALPACAS. CONSULT YOUR VETERINARIAN AND ALWAYS READ THE LABEL BEFORE USING ANY OF THE PRODUCTS MENTIONED. *NEVER* USE ANY PRODUCT IN ALPACAS THAT IS NOT REGISTERED FOR USE IN FOOD PRODUCING ANIMALS.

FOR ANY SIGNS OF UNUSUAL OR SERIOUS ANIMAL DISEASE, RING THE DISEASE WATCH HOTLINE: 1800 675 888.



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