

GENERAL INFORMATION ON WORMS

- Worms that infect grazing animals spend the majority of their life cycle in the stomach and intestine of their host. The mature worms lay eggs that are shed in the hosts faeces. In favourable conditions, the eggs develop on the pasture into infective larvae. These are then eaten by another grazing animal.
- The time from the animal eating the infective larvae to the worm maturing, laying and secreting eggs is 21 – 28 days.
- Ideal conditions for larvae development include moisture and warmth (20-25 ° C is ideal). Therefore larval numbers are highest over the warm wet months, early summer and autumn.
- Of the total worm population, only 10% are found within in the animal, while the remaining 90% are found as eggs or infective larvae on the pasture.
- Most of the infective larvae are found in the bottom 2 cm of pasture and larvae may survive up to 1 year in pasture.
- Physical signs of a high worm burden include: weight loss, poor condition, depressed appetite, scouring, dags, pot belly, rough coats, weakness, coughing and sometimes anaemia.
- Cattle develop resistance to worm infections but only at 18-20 months of age.
- Sheep develop resistance, but like other species if their immunity is down due to other disease or poor nutrition they can still get infected as adults.
- Alpacas and goats don't appear to develop any resistance to worms and therefore need regular drenching. **Be aware, not many products are licensed for use in goats or alpacas. Off label use is done "at your own risk".**
- The most pathogenic worm in sheep, goats and alpacas is Haemonchus contortus or barbers pole worm.
- This worm lives in the stomach and sucks the blood causing severe anaemia. It is a very prolific breeder, with 1 female worm being able to produce up to 10,000 eggs per day. This can lead to very heavy larval burdens on pasture during optimal conditions.

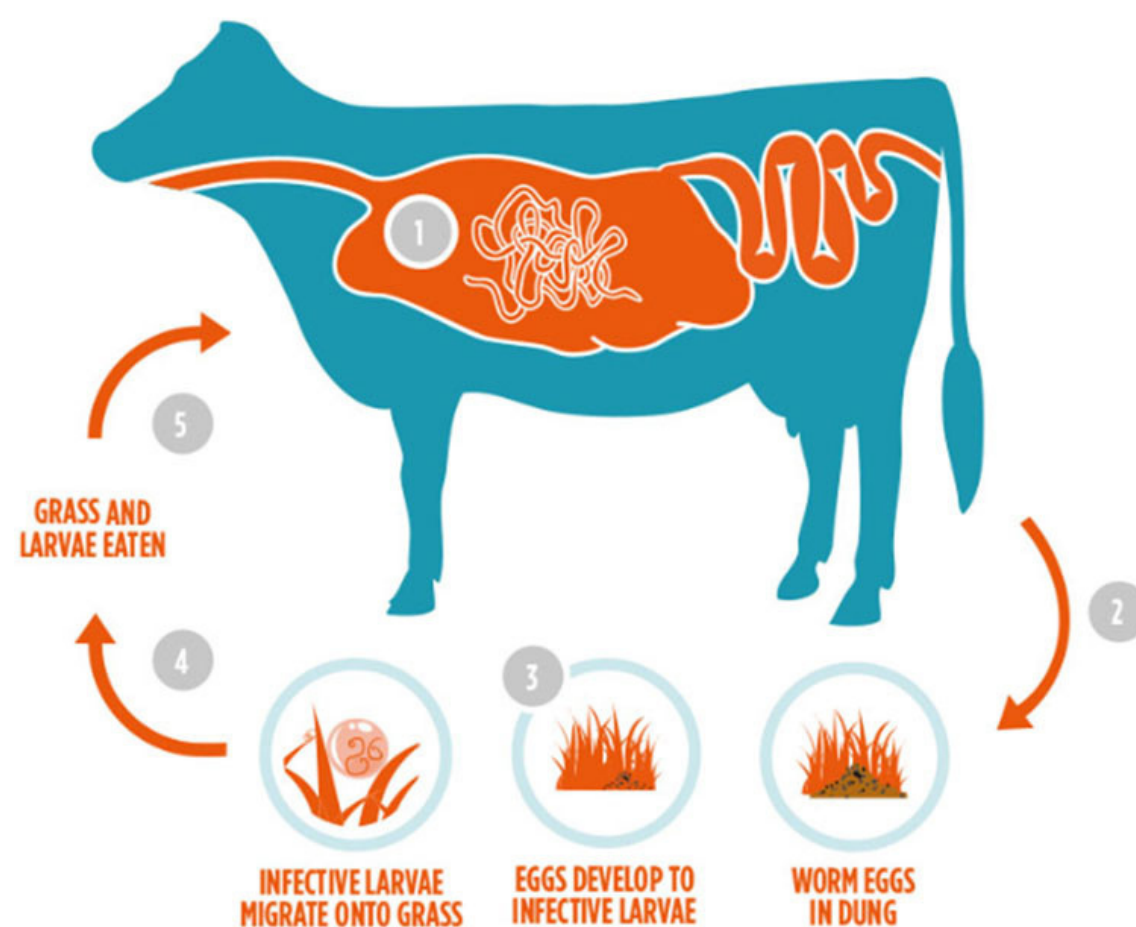


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ADVICE ON WORM CONTROL

Parasite control is aimed to minimise pasture contamination, minimise larval uptake and monitor the success of your plan.

Preventive drenching

- Drench all young stock on the property every 28 days (strictly) until at least the animals first winter. Start when animals are beginning grazing, this is usually around 6-8 weeks of age.
- When there is a high stocking rate or ideal weather conditions (warm and wet) the larval contamination on the pasture will be very high so drenching of older animals may be required.
- Decisions around drenching older animals can be made by monitoring the animals worm burden. This can be done by performing regular faecal egg counts and monitoring mucous membrane colour of gums and conjunctiva . If faecal egg counts are rising above 500 eggs per gram or animals have pale mucous membranes (indicating anaemia) then more frequent drenching of older animals may be required.

Drench appropriately

- Weigh animals regularly and drench to the correct weight. If just weighing a few animals to get an average, always drench mob to heaviest weight. It is always better to over drench than to under drench.
- Check drench guns are working and are giving the correct volume. This can be done by squirting a volume into a measuring cylinder and checking for 5 consecutive doses.
- Using the sheep dose rate x1.5 is the appropriate dose rate for goats. The dose should then be repeated in 12 hours.
- If administering an oral drench ensure the drench gun is placed over the back of the tongue.
- Ensure drench is well mixed before giving.

Use a quarantine drench

- If you are bringing in new animals to the property, use a triple combination product such as Matrix.
- Weigh animals and ensure you have the correct dosage.
- Hold animals off pasture for 24 hours.
- If practical, keep separate from the rest of the animals on the property for at least a week. This will also allow for observation of any other health issues and stop the spread of disease to the rest of the animals.

Pasture management

- Adult cattle and sheep develop resistance to worms and therefore can be used to “mop up” pasture contaminated with infective worm larvae.
- Rotate paddocks regularly with different classes and ages of stock, this is known as cross grazing. Cross grazing paddocks will also help maintain pasture quality.
- Avoid always grazing the same paddocks with the same young stock.
- Allow time between grazing pastures for paddocks to recover.
- Avoid over stocking. The higher the stock density, the higher the worm burden on the pasture.

Monitor the drench program regularly

- This will check drench efficacy and help detect any drench resistance early.

METHODS OF MONITORING WORM CONTROL

Faecal egg count

- Requires 1 heaped teaspoon of faeces per container.
- Faeces should be fresh (still warm) when collected.
- At least 10 samples from the mob are needed.
- Keep samples cool (but not refrigerated if doing larval culture).
- Bring into clinic as soon as possible (preferably before 4 pm on the day of collection).

Larval culture

- Worm eggs from a faecal sample are cultured out to the larvae stage.
- This identifies which type of parasite is present.
- Takes about 10 days.

Drench check

- 10 faecal samples are taken 10-14 days after using an oral drench.
- If worm eggs are present either there is drench resistant worms or the drench has not been administered properly (e.g. incorrect dose etc.).

Faecal egg count reduction test

- Used to check drench effectiveness or resistance.
- Animals are divided into groups of 10-15 and individually identified.
- A faecal egg count is preformed to ensure that there are reasonably high egg counts present.
- Animals are weighed and drenched individually with an oral drench.
- A faecal egg count is preformed 10-14 days later followed by a larval culture. This will identify which worm type is present and therefore resistant.