Goatvetoz Autumn Newsletter

Goat Veterinary Consultancies - goatvetoz

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Poor Doers

Unfortunately some kids have a set-back like an outbreak of scours and never really recover. There can be a good reason for this. Coccidia destroy the cells lining the small intestine during both their asexual and sexual reproductive cycles. This causes bleeding and flattening of the gut villi (projections into the gut lumen that help increase the surface area). This bleeding can then cause scar tissue which cannot function properly. Also the flattened villi can sometimes stay like this instead of healing. This means their ability to absorb nutrients is forever reduced.

In addition, kids suffering from coccidiosis have been found to have low blood Vitamin B12 levels. This in turn causes them to have a less efficient immune system and can also lead to anaemia.

Similarly black scour worms (*Trichostrongylus* worms) can cause flattened villi and tiny blood vessels in the small intestinal walls to bleed. This can have similar long term effects on the kids' ability to absorb nutrients. For this reason, scouring kids must be diagnosed and treated quickly and then nursed carefully afterwards to give them the best chance of healing internally. High quality feed will be needed to compensate for the impaired absorption. If the kid was being hand-reared before weaning it is well worthwhile re-introducing milk in a bottle again. Unfortunately if weaned from a doe, there is very little chance of training to a bottle.

A faecal sample can be tested for the presence of either worm eggs or coccidial oocyts. The photo below shows 3 large worm eggs and lots of smaller coccidial oocysts under a microscope.

These 2 diseases require different treatments so a diagnosis first is essential. A vet's prescription is also needed because either the vet medicines needed will be "off-label" as not registered for goats or needed at a

How do I tell if my doe is on heat?

Many goat owners don't keep a buck and transport a doe to get mated by a buck, wait and then take it home again. It is generally all over in about 10 minutes. If this is done on a driveway or a separate are and the doe does not graze on the buck's property, the doe is not exposed to diseases like Johne's. You can tell a doe is in season by the following:

- doe has a different tone of voice
- doe calls out a lot
- doe's vagina is reddened
- slimy, clear vaginal mucous
- wagging its tail continuously
- stands still while the other doe jumps on top of her rump

Not all does show all signs above. If not sure, open a glass bottle in which you have a rag that has been wiped over the head of a buck and saved. The doe's signs then intensify. You can then put the doe into your car or trailer and transport her to the buck.

higher dose rate than on the label.
Once the kid is a poor doer then nothing can be done to fix this. Commercially these goats would be culled. If a pet goat they should not be mated as likely to develop pregnancy toxaemia or have a difficult kidding.

Yersiniosis

Yersiniosis are caused by the bacteria *Yersinia pseudotuberculosis* or less often, *Yersinia enterocolitica*. The situation is complex as these bacteria can be isolated from normal goats, mainly in summer. Some other factors thought to be involved are poor condition, stress, cold and rain or other parasites.

These *Yersinia* bacteria then cause infection of the gut and inflammation of the gut lymph nodes. This results in scouring and loss of condition and sometimes bottle jaw and facial swelling. Outbreaks can occur with multiple goats affected and some deaths may happen. A post-mortem with samples of the gut and gut lymph nodes sent to a lab can confirm a diagnosis (and other possible diseases than can then be ruled out). In live goats, a rectal swab can be used to test for a range of conditions that can cause scouring including yersiniosis and salmonellosis.

Treatment is to remove the predisposing factors and antibiotics prescribed by a veterinarian e.g. oxytetracyclines. Antibiotics are Schedule 4 drugs so needs a vet's prescription with with-holding periods. New Zealand has a vaccine (Yersiniavax®) against the 3 strains of *Yersinia pseudotuberculosis* but only for deer.

However veterinarians have a saying i.e. "If you hear hoof beats, think horses not zebras." Yersiniosis is much rarer than worm infections that cause scouring such as *Trichostrongylus* or *Nematodirus* and coccidiosis Therefore, check faecal samples first before getting a rectal swab done for Yersinia detection. If no worm eggs nor coccidia oocysts, then you can think about testing for Yersiniosis.

I recently ran a Zoom webinar on scouring in goats and Yersiniosis was covered along with coccidiosis and black scour worms. Email me (goatvetoz@gmail.com) if interested in watching the recording (fee is $42).

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Scour Worms

Autumn is the time that black scour worms, called *Trichostrongylus spp.,* start to accumulate on pastures and inside goats. They produce less eggs that Barbers pole worms (*Haemonchus contortus*) so take longer to build up after the warm weather comes along. The eggs of these worms need lower daily maximum temperatures than barbers pole worms and some moisture (10 to 15mm rain) to hatch and infect other goats. *Trichostronglus colubriformis* only needs a daily maximum of 15 degrees C and *T. vitrinus* only needs 10 degrees.

Worm egg counts and larval cultures are essential. The clinical signs ae scouring & loss of condition. Unfortunately goats need higher drench dose rates than sheep. Talk to your vet & get a prescription for these "off label" sheep drenches. Combination drenches with actives from different families (only available in Australia and New Zealand) are the best for preventing resistance as the worms then need to have 2 or 3 mutations at once to survive these drenches.

The best thing goat owners can do is only drench when needed & to keep out resistant worms. So quarantine drench all new goats & feed Bioworma for 70 days (life of average worms that survived the drenches).