## Goatvetoz Summer Newsletter

Goat Veterinary Consultancies - goatvetoz

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### Sick goat kids

The most important thing is to get a diagnosis and early treatment from your vet. Keep isolated until you know what you are dealing with and if it is infectious. But there are some basic nursing principles that can help in most situations with sick kids.

Many kids have low body weight and like kittens and puppies, are prone to getting chilled. If still on their mother then pen together so the kid can benefit from the does warmth but with lots of deep fluffy bedding. A box on its side with bedding can also help when the mother stands up so the kid can get inside and keep warm.

Sick kids should have water always available and if they have loose faeces, then offer both straight water and water with electrolytes added (mix according to the label). Make sure the buckets are low enough for the kids to drink from. If the kid is dehydrated (as demonstrated by the skin pinch test or eyes that are sunken into the skull) then the kid must be given warm fluids. This is ideally given by a drip with the sterile fluid warmed up first. Alternatively give warm electrolyte solution in between normal milk feeds. Milk clotting in the 4<sup>th</sup>

stomach can be affected if electrolytes are given within 2 hours.

Loss of appetite can be compensated somewhat by feeding more often so up to 6 feeds a day if on a bottle. Kids need milk even if they have diarrhoea as they have few fat reserves and need nutrition to fight off any disease. Offer solid feed at least twice a day and make sure it is fresh and appetizing.

If the kid won't take a bottle or is no longer suckling from its mother, you will need to stomach tube it until it starts again. Ask your vet to teach you how to do this as it is a skill all goat breeders need to have. The stomach tubes need to be cleaned thoroughly and disinfected in between use — the same as you would for an infant's bottle and teat.

Probiotics can have a role in recovery so talk to your vet about if they will help and when to start them (often after antibiotics have stopped). Monitor the kid carefully including taking its rectal temperature twice a day. Contact your vet if over 40 degrees C or 104 F. It might then need antibiotics and/or non-steroidal antiinflammatory drugs. Once the kid has recovered then the pen must be cleaned then disinfected.

## Worm Drench dose rates

Goats have very efficient livers and metabolise drugs more quickly than sheep or cattle. This means they need higher dose rates for worm drenches than sheep. In Australia, this means the all worm drenches are used "off label" and need a veterinarian's prescription. Some drench family needs different higher drench dose rates. White drench families need double the sheep dose. The levamisole family for example needs only 1.5 times the sheep dose rate and this is getting close to the toxic dose rate.

With combination drenches (none are registered for goats) you have to use the dose rate of the most dangerous chemical. Some e.g. Qdrench, need to be vigorously shaken before each use as otherwise the components separate out. Failure to shake can cause deaths.



# Injectable or backline or oral worm treatments

Many goat owners want to use injections to control worms as they find it easier than drenching. Studies have shown that injections of worm treatments like moxidectin, doramectin and ivermectin have worked overseas in the past to control goat worms. These drugs are widely used in cattle and unfortunately illegally used in some goat herds. But is using injectable worm treatments a good idea?

The answer is no. The
American Consortium for
Small Ruminant Parasite
Control (see
wwww.wormx.info)
recommends only the use of
oral worm treatments in
sheep, goats and alpacas.
Wormboss recommends only
oral drenches for goats.
Ideally you should use
combination drenches
prescribed by a vet.

Why? The reason is that the use of injectables (and pourons) leads quickly to resistance. These products are only from 1 drench family and they also have a long "tail" or a long period when there are small amounts of the drug in the goats system. In the USA the meat withdrawal time if you use injectable moxidectin is 130 days. Research done at the University of New England (UNE) found levels of

moxidectin still above the maximum allowable levels 42 days after injection (Doyle et al, 2021). This long period allows worms not killed immediately to develop resistance (the same as under-dosing does). The situation in the USA was so bad that when they tried to find a commercial goat farm to do research on injectable moxidectin, they could not find one that was not already had resistance (https://www.wormx.info/m oxgoats).

Similarly when Swiss researchers wanted to study eprimectin pour-on use in goat farms, all 43 they tested already had resistance (Murri et al, 2013). This was only 10 years after this pour-on was registered for goats. Recent research found that pour-on efficacy was "highly subject to individual variability" in goats (Rostang et al, 2020). This also can lead to resistance.

There are times when a vet may prescribe an injectable "mectin" e.g. for mites or in a dire worm situation with deaths. In the latter case, a Primer and an Exit drench must be used i.e. an effective drench that is not a mectin. But this is not a long term solution. Prescribed combination drenches are the best worm treatments with worm egg counts done to prove they worked.

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### Storage of your goat medicines

All veterinary medicines have requirements for storage on their label or in the paper insert inside the box. Vaccines and many antibiotics generally must be stored between 2 and 8 degrees C. However many people use an old fridge that only just worked inside their house and now is stored in a hot shed. Research in the United Kingdom found that just over half these fridges were outside this range for some of the time. If too cold and drugs and vaccines get frozen, then they must be thrown out and if they get too hot, they are then not effective or contaminating bacteria can grow in the vial.

Similarly worm drenches have a storage temperature range and for many this has a maximum of 30 degree C. Read the label carefully and store as required. Australian summer get very hot so don't store in your goat shed or a garden shed. Bring your drench container inside into air-conditioning or put in a very cool place e.g. under the house in a cellar. A temperature alarm is also a good idea. Drenches are expensive but more importantly, they keep your goats healthy, so look after them

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