

## **Worms in alpaca**

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Alpaca are susceptible to both cattle and sheep internal parasites including liver fluke (*Fasciola hepatica*). Because of their use of dunging “latrines” this helps to control roundworm parasites, and worm burdens are not usually of pathogenic (disease-causing) proportions. Occasional heavy *Haemonchus* (barber’s pole worm) burdens are reported, especially in high rainfall coastal areas. Other types include black scour worm (*Trichostrongylus*) and small brown stomach worm (*Ostertagia* also known as *Teladorsagia*)

### **Worms in alpaca - what to do?**

How do you decide if your alpaca have worms or if they need to be drenched? Do you drench them when you think they might need to be drenched? Or do you treat them because you know they have worms? Are you drenching too often, thus wasting money and increasing the likelihood of resistance to drenches developing?

Visual appraisal of animals is a notoriously unreliable way of assessing worm burdens. This is especially so in alpaca where the fleece can hide their true body condition. By the time animals ‘look wormy’; they can already have a serious worm problem. Be aware also that ‘a wormy appearance’ (diarrhoea, pallor of eye membranes, ill thrift, poor exercise tolerance) can be due to causes other than worms.

**WormTest** can help you find out if your alpaca have worms or not.

### **WormTest - What is it?**

WormTest is used to monitor internal parasites of alpacas as well as cattle, sheep or goats. Worm egg and fluke egg counts are done on dung samples submitted to the laboratory in a WormTest Kit. Egg count results are faxed or mailed to farmers within 24 hours of the samples arriving at the laboratory.

The type of worms present can also be identified. This requires culturing worm eggs and examining the larvae which hatch, so a further 10 days is required for the result.

### **WormTest kits -Availability and Cost**

WormTest faecal collection kits are free and available from Rural Lands Protection Boards, stock and station agents and NSW Agriculture. Private laboratories also provide a similar service.

Prices for laboratory testing vary according to the tests required. Call your laboratory for current charges. (See below for contact details).

### **Sample collection and using the kit**

To collect dung samples muster a number of the mob to a clean corner of a paddock for 10 minutes and then let them drift away quietly. Younger animals are often an important group to sample because they tend to be more susceptible to worms. Fresh, clean dung samples can then be collected from the ground, avoiding soil. Alternatively, samples can be collected from the communal dung heap, but samples must be fresh and clean. Animals used to being handled can be sampled direct from the rectum. (A glove is supplied in the WormTest kit).

Ten samples from separate alpaca are required and sufficient dung to fill each sample container in the WormTest kit should be collected. Fewer animals than 10 can be sampled, but this is less economical and, in larger groups of alpaca, gives less information on the likely level of worm burdens in the rest of the group. Keep young animal samples separate or identify individual animals. Fill out the information sheet and post to the laboratory within 24 hours of collection. Keep samples cool but do not refrigerate.

### **Where is the testing done?**

WormTests are done at NSW Agriculture's Veterinary Laboratories. Other laboratories offer a similar service. Following are the contact details for some NSW laboratories:

NSW Agriculture Regional Veterinary Labs

[www.agric.nsw.gov.au/reader/das-laboratory](http://www.agric.nsw.gov.au/reader/das-laboratory)

“NATA accredited (to ISO 17025) and unsurpassed for breadth and quality of services”.

- Camden/Menangle (at Elizabeth Macarthur Agricultural Institute):  
tel (02) 4640 6327
- Orange:  
tel (02) 6391 3858
- Wollongbar:  
tel (02) 6626 1261

Some private laboratories

- Veterinary Health Research, Armidale  
[www.vhr.com.au](http://www.vhr.com.au) tel (02) 6771 1358
- New England Veterinary Centres, Armidale tel (02) 6771 2022

### **Interpreting Worm Egg Counts**

Results will be faxed or posted to you within 24 hours of samples being received by the laboratory, and a copy sent to your nominated veterinarian. Worm egg counts in alpaca are usually low (less than a few hundred eggs per gram faeces [epg]), and significantly less than values commonly found in sheep or cattle. Results should be discussed with your vet or animal health advisor to determine the need for any worm treatments.

### **Benefits of regular WormTesting**

WormTest is good value for money:

- It could save you the expense of unnecessary drenching.
- WormTest can help forestall a disaster due to heavy worm infection.
- The test can be used to check whether a drench is working, by collecting samples 10 - 14 days (longer for 'long-acting' drenches) after using a particular drench.
- WormTest is a useful tool for monitoring your worm control program.

**Don't guess! Worm Test!**

### **Drenches for alpaca**

There are no anthelmintics (drenches) registered for use in alpaca. This means the only way they can be used legally in NSW in these animals is under veterinary direction. See your vet for more information.

As to dose rates of drenches for alpacas, experts have varying opinions. Some state that cattle or sheep dose rates are effective. However, one authority from New Zealand suggests that sheep dose rates of ivermectin for example, or oxfendazole (a benzimidazole (BZ) or 'white' drench), are unsuitable, and that ivermectin needs to be given at 1.5 times the sheep dose rate and oxfendazole at twice the sheep dose rate. Again, it is important to get advice from your vet.

### **'Organic' drenches**

Organic drenches, for example plant-based remedies, have been used for many centuries in traditional agriculture in various parts of the world. There is increasing interest in these alternative methods of worm control in western agricultural systems. A difficulty is getting reliable information on the efficacy and safety of organic remedies as well as residues if any following their use. Some of them doubtless have some efficacy, but in the absence of good data, animals should be carefully monitored.

Legal implications also need to be considered. Under the NSW Stock Medicines Act of 1989, the use of unregistered products or medicines in animals that produce food for human consumption or are used for human consumption is illegal. Permits for such products can and should be obtained, for example, by a producer organisation, from the Australian Pesticides and Veterinary Medicines Authority ([www.apvma.com.au](http://www.apvma.com.au)).

However drenches registered for use in sheep, for example, can be used in alpaca under written veterinary direction.

## **Integrated parasite management (IPM)**

As with other animals, integrated worm control is better than relying solely on frequent treatments, whether ‘synthetic’, ‘chemical’ or ‘organic’.

IPM involves having a number of ‘strings to your bow’. These include:

- **effective use of drenches.** Use drenches no more than necessary, and be careful with your choice of drench. See your local vet.
- **grazing management.** Set-stocked animals are more likely to get wormy. Move animals to fresh pasture from time to time. Although alpaca are susceptible to cattle (and sheep) worms, rotational grazing using adult cattle, for example, is likely to reduce exposure to worms.

**Be especially careful of alpaca used as guardians for lambing-ewe flocks, as ewes can heavily contaminate the lambing paddock with worm eggs.**

With respect to liver fluke, avoid grazing known ‘flukey’ areas in danger periods (eg dry autumns). Wet areas such as slow flowing streams and drainage ditches where the necessary vector aquatic snails live are potentially ‘flukey’ areas.

- **nutrition.** Well-nourished animals generally tend to have stronger immunity and less worm problems.
- **“fine-tuning”** Fine-tune your worm control program using tools such as regular worm egg count monitoring (WormTest) and testing of effectiveness of drenches. (Resistance of sheep worms to drenches is common). Get good advice, especially sound information relative to your local area.

Refer to the NSW Agriculture web site for further information on worms and drenches. [[www.agric.nsw.gov.au/reader/sheep-internal](http://www.agric.nsw.gov.au/reader/sheep-internal)].