



Facial Eczema



Facial eczema is a disease of the liver and skin that can occur in Alpacas, sheep, cattle and other pasture grazing animals.

FE is caused by a fungus called *Pithomyces chartarum*, found in the dead matter at the base of pastures in New Zealand. In warm and humid weather conditions the fungus produces spores that contain a toxic compound called Sporidesmin.

The spores are ingested by alpacas as they graze, releasing Sporidesmin into the blood stream. As the liver attempts to break down sporidesmin, this releases oxygen free radicals and causes liver damage, which in turn impairs the liver's ability to function normally. Toxins build up in the bloodstream and react with sunlight as they are going through blood vessels under the skin, causing the sunburn like signs mentioned above.

Use the following 6 point check list to check your Alpacas every day.

In animals affected with Facial Eczema, you may notice:

A = Appearance – Check the skin for swelling, redness, crusting and oozing, especially around the eyes, ears and nose.

L = Locomotion – As FE is very painful, animals often don't move much and seek shelter and shade.

P = Poo – may be normal or abnormal.

A = Appetite – appetite is often decreased.

C = Condition – Weight loss and decreased production often occur.

A = Attitude - Affected animals are depressed and lethargic, but can often show signs of irritation and restlessness. Abortions and death may occur.

Diagnosis is made on the basis of clinical signs, appropriate weather conditions and history of

exposure to the fungus. To confirm the diagnosis, a blood test is available to check for the liver enzyme GGT; this gives an indication of prognosis for recovery and amount of liver damage present. Other diagnostic aids are liver biopsy and liver examination during post mortem in a deceased animal.

Although the liver has a huge potential to regenerate, the spores often cause permanent liver damage. Affected animals should be kept in the shade, ideally complete darkness to minimise skin signs and should receive general supportive therapy like pain relief, Vitamins for liver support and low protein feeds.

Prevention in this case is definitely better than cure, so before the at risk time of year, usually late summer and autumn, the following measures are available to minimise exposure:

- Spore counts are carried out in certain areas in the district, measuring the number of spores in the pasture and thus the danger for animals grazing those pastures. Weekly spore counts are available at LHVC and can be emailed or faxed to you directly.
- Spore counts are also available for individual paddocks, please call us for more information on these.
- Zinc supplementation before and during the risk period is important as this disrupts the release of oxygen free radicals in the liver. Zinc is available as zinc sulphate to go into troughs or zinc oxide as a feed additive. Too much zinc can lead to other diseases so the recommended daily intake of 2g zinc per 100kg live-weight should not be exceeded.
- Through suitable grazing strategies the

excessive dead plant material can be kept to a minimum, thus reducing the amount of fungus.

- Fungicides are available but these are not 100% effective and other measures like zinc and grazing strategies should also be used.
- Replacing ryegrass pastures with kikuyu, plantain, chicory or clover can also help to reduce spore numbers.

For any questions or concerns on this or other health issues in your Alpacas, please don't hesitate to call us at Levin and Horowhenua Vets on 06 368 2891.



Facial Eczema spores under a microscope