

Facial Eczema

We are getting towards the danger period for Facial Eczema. To minimise the risk of your animals getting this disease it is helpful if you understand it.

It is caused by a toxin called sporidesmin which is contained in the spores of the fungus *Pithomyces chartarum*. This fungus is quite fussy about its growth requirements, but when they are met, the fungus produces large numbers of spores on the pasture.

What are these requirements

1. A grass minimum temperature of 12°-13°C.
2. Moisture. Light rain is sufficient.
3. Dead plant material, litter, close to ground level where the fungus lives.
4. Paddocks sheltered from wind, especially the south, and sun. (Paddocks surrounded with shelter belts).
5. A short grass level, so animals are grazing the dead grass, litter, close to ground level. This may result from hay being taken off a paddock, then a dry spell, or a draught.
6. Warm rain that comes after a prolonged dry spell, often in March-April.

When these requirements are met, the fungus reproduces rapidly producing massive numbers of spores. These spore levels (spore count) are advertised to give a guide as to the danger of Facial Eczema.

How does the spore affect livestock

The spore, sporidesmin, is toxic to the liver of sheep, cattle, alpacas and goats. When ingested by grazing dead grass, the spores cause severe liver damage which may result in ill thrift or even death. The damage can be cumulative through prolonged exposure over a season, or from one year to the next.

What are the symptoms

Because of the liver damage, the animal cannot excrete chlorophyll (the green stuff in grass) which then causes the most common symptom, photosensitivity. This shows itself as inflammation, irritation, swelling and "sun burn" around the eyes, muzzle, teats and vulva and any area not covered by wool or fibre.

Other symptoms include a drop in milk production, ill thrift, loss of condition and sudden death (especially alpacas). Sometimes these symptoms don't show themselves until later in the year when the stress of winter or pregnancy on top of Facial Eczema liver damage can cause ill thrift.

Prevention

There is not a lot we can do about the temperature, wind and rain, but we may be able to:

- Avoid grazing short pasture with a lot of dead litter at its base.
- Graze south facing longer pasture if possible over danger period.
- Follow the district spore counts. They will give you a trend of spore counts heading up or down.
- Graze safe feeds. Summer/autumn crops.
- Alpacas can be taken off pasture and fed hay and nuts.
- Spray a paddock with a fungicide to create a "safe paddock" to put stock during a danger period.
- Do your own spore count testing of paddocks
- Dose stock with zinc, which has a protective effect on the liver

Zinc may be administered via the water supply (Zinc Sulphate) or orally with Zinc Oxide boluses (Time capsules). These capsules are licensed for use in sheep and cattle. After administration, they slowly release Zinc, giving protection for up to six weeks. They may be repeated after four weeks if required but they should not be used with any other Zinc treatment.

Pellets containing Zinc are available for Alpacas, but palatability can be a problem.

There is no effective treatment for Facial Eczema once the symptoms appear, and when the symptoms appear, the liver damage has already occurred, so prevention is the key.