Facial Eczema – Are Dexters Affected?

I have heard it said in several quarters that Dexters do not get Facial Eczema (FE), as their solid colouring protects them from the scabby, reddened skin lesions. Alas, these lesions are the result, not the cause of, this expensive and painful disorder. All cattle are subject to the considerable internal damage which gives rise to what we see as FE, and this article explains why.

If you scratch down right to the bottom of your pasture plants, you will find a thin layer of decomposing vegetation, usually primarily rotting Ryegrass. In this layer, in New Zealand, lives a fungus called *Pithomyces Chartarum* which, for most of the year, does no harm whatsoever. However, when this layer maintains a warm temperature of at least twelve degrees Celsius for several days the temperature right at the soil/grass interface is known as the grass minimum temperature, and listed in your newspaper with the weather report), together with a high level of humidity (usually in excess of 5 mm. rain, but can also occur from just very muggy weather), this fungus produces spores. Under the microscope, these spores look like little hand grenades, and their effect is not dissimilar! The spores contain a toxin, called *sporidesmin*, which is what causes the trouble.

I must make the point here that this is a disorder affecting animals in the warmer parts of the country only. From Waikato north, conditions can be right for eczema from late December to the end of May; in the lower North Island, there can be isolated hot spikes in late December/January, but the main problem in late February to May; the South Island is said not to be affected, but with the warming on our environment, it has now been reported in Nelson Province. Further south should, theoretically, be clear of it, but if conditions are right, it would pay to check with your vet practice, who will be monitoring the situation.

In the summer/autumn, usually after a prolonged dry spell which reduces the pasture to a level where the animals are grazing right down to the "dead matt", warm rain or dampness over several days can cause the spores to be produced. These are picked up by the animals as they graze; the sporidesmin makes its way around the animal's body and ends up in the gall bladder. As it drains away from the gall bladder, down the bile ducts, this poison attacks and destroys the cells lining the ducts. The affected ducts quickly become plugged with dead cells and inflammatory matter and collapse, trapping the bile behind the lesions. This bile, which is quite corrosive in itself, has nowhere to go, so it backs up into the liver, causing considerable damage to the liver cells to which it comes into contact. In a desperate attempt to be eliminated, it further infuses into the blood vessels, and goes into circulation around the animal's body. As you can imagine, by this time the animal has suffered quite a serious amount of internal damage – a badly-damaged, poor or non-functioning liver is causing problems of its own elsewhere in the body. Only at this stage, where bile is circulating in the blood vessels, do you start to see the characteristic skin lesions on the animal.

Animals such as Friesians show lesions on non-pigmented areas, where there is little protection from the sun's rays. The skin becomes hot, reddened, extremely itchy, and

the rubbing and scratching which ensues produces raw, scabby lesions which give this disorder its name. However, as you can now see, there is by this time a whole lot of severe damage already going on inside, quite a bit of which is irreversible. Even solid-coloured animals such as Dexters will show some outward signs of being affected, if you know where to look for them. The first sign often seen is puffy upper eyelids, which the animals will be seen to be rubbing. This is because, even with the protection of skin pigment, the eyelid skin is very thin, and some sun damage can occur through to the surface blood vessels, which sets off the itching, hence the resultant swelling. This in itself is not diagnostic, as at that time of the year other things, such as allergies, can also cause puffiness around the eyes. However, look more closely at the eyes, and you may see reddening and damage of the third eyelid. Also, you will notice there are wide, non-pigmented stripes on the underside of the tongue – these can get sun-struck when the animal puts its tongue out to grasp the forage. Not only does the underside of the tongue get crusty and reddened, there may actually be an ulcer on the tip of the tongue. Your vet can take a blood sample, and do a serum test to determine the level of systemic damage which has occurred.

Of course, this is far from the full story on FE – "sensitising doses", age-susceptilibility, and other factors relating to the animal and its environment, provide material for further articles. Meanwhile, being alerted, you can approach your vet for further information and help to prevent this disorder. The article is presented early, in the November issue because, due to our increasingly fluctuating weather conditions, those of you in the north may be subject to predisposing environmental conditions sooner than the late summer/autumn usually seen.

Prevention is all – there is no cure for what is, in essence, a "poisoning"!

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Sunrapt Dexters

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