

DERMAL NECROSIS OF SHEEP FOLLOWING SUMMER SHEARING

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Dermal necrosis is an inflammatory skin condition – essentially severe sunburn - which occasionally affects the backs of sheep shorn in summer or autumn. Brightling (1994) stated that it occurs occasionally in very hot conditions in fat, recently shorn sheep that do not have access to shade. It occurs because subcutaneous fat prevents heat dissipation, so that the skin on the back is “cooked”. Others have suggested that fat sheep are particularly susceptible because they are more likely to be closely shorn than thin, bony sheep. Pour-on insecticides or dips have been suspected of causing or exacerbating the condition. Brightling believes this is incorrect as cases have occurred in sheep not treated with insecticides. Western Australian records support Brightling’s statements about sheep condition and insecticide treatment (Norris 2004). Anecdotal evidence suggests that dermal necrosis has probably occurred in Western Australia for many years, although sporadically and at a low prevalence.

The purpose of this paper is to raise awareness, particularly in Western Australia, of this condition and its predisposing factors, so that owners of sheep that could be at risk will take simple preventative measures.

Although dermal necrosis is not common, it is worthy of recognition and preventive action. Though rarely fatal, it is probably painful for affected sheep, worrying for owners and it can cause financial loss. Flystrike is a possible complication. Recovered sheep will produce less or no wool from the affected area at the following and possibly subsequent shearings. They may suffer permanent scarring. When dermal necrosis does occur, up to 100% of a mob of shorn sheep may be affected.

Of 12 cases of dermal necrosis that have been investigated in the south-west of Western Australia in the past 3 summers, all involved sheep in “good” or “fat” condition. Their condition was probably above the average for sheep at that time of year. The breeds of sheep were Merino (9), fat-tail (2) and Suffolk (1). Back-line lice treatments had been applied off-shears in 7 cases. Approximately 60% of sheep in WA are treated for lice after shearing, and back-line insecticides constitute at least 85% of treatments used (D. Evans pers. comm.). Shearing occurred in the months of December to March, inclusive. The amount of shade available to the affected sheep immediately, and during the first week or 2 after shearing was not documented.

In Western Australia, investigations into the cause of this condition have been limited by the fact that affected sheep have not been seen by farmers until at least 1 week, and up to 3 months after shearing. No cases have been investigated at a very early stage of development. When most affected sheep were first examined, their backs had patches of hard, dry, necrotic skin, some of which may have sloughed. If swabs were taken, various contaminant bacteria were identified, but not *Dermatophilus congolensis*. The tissues were sometimes fly-struck. The backs of sheep seen at a late stage, when the lesions had healed, had either wool-free scars or well-demarcated areas of shorter, regrowing fleece.

Although the cause of dermal necrosis has not been established without doubt, enough is currently known to alert farmers to the probable risks, which are: summer shearing, fat sheep and lack of shade. Breed and sex of sheep and treatment with an insecticide off shears are unlikely to be important in the web of causation of this condition.

BRIGHTLING, A. (1994). In “Stock Diseases”, p.80 (Inkata Press, Melbourne).

NORRIS, R. (2004). In Animal Health Australia Surveillance Quarterly, **9**: Issue 2 p16.

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