

Acute bovine liver disease



Animal Health & Welfare Branch

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DEPARTMENT of PRIMARY INDUSTRIES,
WATER and ENVIRONMENT

What is it?

Acute bovine liver disease (ABLD), previously known as phytotoxic hepatitis, is a disease of beef and dairy cattle. Although it occurs sporadically throughout Tasmania, most recorded cases have been in the Northern Midlands and South, particularly the Derwent Valley and Copping area. Cases have also been recorded interstate.

Signs of the disease

The signs of ABLD are variable. As the name of the disease suggests, signs are related to liver disease of sudden onset. In the worst cases, sudden deaths of cattle over six months of age occur and these may be sporadic or they may involve large numbers within a herd. In cattle that don't die suddenly, signs observed are mostly related to photosensitisation, which occurs when plant breakdown products react with sunlight in the skin. Affected cattle may be distressed, agitated, seek shade and develop sunburn on the muzzle and areas of pale skin, such as white faces, white patches, udder and vulva. Other signs may include fever, a drop in milk production and depression. Other species such as sheep and horses are not affected.

Cause

Although ABLD may be a very severe liver condition, the cause is unknown.

Cases of ABLD are often associated with the introduction of cattle into certain paddocks, particularly those that have been under-utilised and contain considerable standing and/or fallen dry feed. Signs of ABLD may be observed within hours of introducing cattle to the 'toxic' paddock.

An annual grass known as Rough Dog's Tail (*Cynosurus echinatus*) is often associated with cases of ABLD, however it is unknown whether the plant is directly involved or whether it is merely an 'indicator' of some other factor.



Figure 1. Rough Dog's Tail. © 2001 Julie Kierstead Nelson

Because many cases of ABLD are associated with warm, moist weather in autumn or spring, a fungal toxin

associated with Rough Dog's Tail has been suggested as being a possible cause. There is no current evidence that the plant itself is toxic. State departments of agriculture and primary industry are currently studying cases in an attempt to identify the cause(s).

Complications

Surviving cattle generally have a prolonged recovery. Areas of affected skin eventually slough and may become infected. A drop in milk production can be significant and if teats are involved, mastitis may occur.

Treatment

There is no known cure for the condition. Although recovery is normally prolonged, early intervention by a veterinarian may assist with recovery by the use of medications such as anti-inflammatories, anti-histamines and zinc. Affected animals should be provided with shade and easy access to drinking water, and may require hand feeding. Skin treatments, particularly those containing zinc and lanolin (eg. nappy rash cream), may help if applied to affected areas of skin. Severely photosensitised cattle may have to be humanely destroyed.

Prevention

Paddocks may remain 'toxic' for variable lengths of time (hours to months) following an ABLD event. It

is unknown whether 'toxic' paddocks will be 'toxic' in future years.

Management options include: (1) eating out the paddock with sheep to reduce the amount of dry standing material, (2) cultivation of high risk paddocks, (3) avoiding grazing cattle on paddocks with an abundance of dry material which have been spelled for extended periods of time, and (4) trying cattle again but with only a few animals at first to test for 'toxicity'.

Cattle should be frequently observed if grazed on 'at-risk' paddocks during 'danger' periods, particularly during autumn and spring. Cattle should be moved off the paddock immediately if any unusual signs are observed.

Further information

For further information on this condition, contact your veterinary practitioner or the DPIWE Animal Health and Welfare Branch on telephone (03) 6233 6875 or 1300 368550. If you suspect a case of ABLD, contact your veterinary practitioner promptly.

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