

# FARM PRACTICE NEWSLETTER

## JULY 2011



### Botulism and Broiler Litter

Since 2003 the Veterinary Laboratories Agency has reported a marked increase in cases of Botulism diagnosed in cattle and sheep. A high proportion of these cases have been linked to the animal's concerned coming into contact with the litter of broiler chickens. Broiler litter is a useful source of nitrogenous fertilizer, though also a potential source of Botulism, particularly if it contains chicken carcasses and fragments. Animals can become infected by direct contact when litter is heaped on farm or spread in fields where stock will be grazing, or indirectly when scavenging birds and animals spread carcass material around the farm, or indeed from neighbouring premises.



Cattle fed silage from crops previously fertilized with broiler litter have also been known to have succumbed to the disease. Broiler litter has also been used as a bedding material, A practice that the VLA has for some time strongly advised against. The new Animal By-products (Enforcement, England) Regulations 2011 now prevent the use of broiler litter as a bedding material for other species. It can, however, still be applied untreated to grassland/farmland as a fertilizer. The VLA currently advise against this practice, as there is concern that as well as the causative bacterial agent (*Clostridium botulinum*), the litter may contain significant levels of botulinum toxin for a number of weeks after spreading.



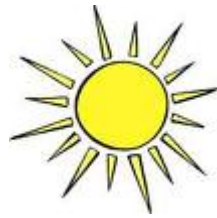
The VLA recommends if used on arable land it should be ploughed in immediately. When its use on grassland cannot be avoided the risk of disease to exposed livestock can be reduced with use of vaccination, though it requires a special UK import license under the Veterinary Medicine's Directorate's Special Treatment Certificate Scheme. So far better to avoid its use altogether.

#### **Botulism: signs and symptoms:**

Botulinum toxin is a neurotoxin which causes a functional motor paralysis.

The onset of disease may occur hours or days following ingestion of the toxin. It is characterised by a progressive, muscular paralysis causing initially restlessness then incoordination, ataxia and recumbency. The animal's temperature remains normal but paralysis of the pharynx and tongue causes difficulty in chewing and swallowing. Paralysis of the thoracic muscles results in respiratory distress, which is almost inevitably fatal.

## Photosensitisation



This is the time of year we sporadically see cases of cattle Photosensitisation. It can occur in any animal but is generally seen in the lighter pigmented breeds, or the classic Black & White. Skin lesions occur due to the presence of photodynamic agents in the circulation, allowing the skin to become extremely sensitive to UV light. Inflammation, swelling and blistering can occur, in severe cases necrosis and sloughing of the skin results. Minor to severe discomfort ensues which has a direct impact on the animals welfare, as well as leading to significant economic losses.

The two main categories of photosensitization are Primary and Secondary.



**Primary photosensitization** occurs when the animal absorbs and circulates photodynamic agents directly from ingested plant material. The usual culprits are St John's Wort, Spring Parsley, some Clovers and Brassicas. Early diagnosis allows for symptomatic treatment with anti-inflammatories, removal from pasture to avoid strong sunlight and further exposure to the causative plant material.

**Secondary photosensitization** occurs due to liver damage. This leads to impaired bile excretion and the accumulation of chlorophyll by-products from ingested forage. Again high levels of this photodynamic agent in



the circulation coupled with pale, non-pigmented areas of skin, leads to epidermal inflammation and damage. The chances of recovery are less likely in these cases, due to the underlying liver pathology.

## Lameness

Also a reminder that the George Vet Group, in conjunction with the Healthy Livestock Initiative, are pleased to offer a great opportunity to investigate and reduce the level of lameness on your farm. Funding of up to 70% is available, covering whole herd mobility scoring, full on farm risk assessments and both individual and group workshops to be arranged.

Ring us for more details.



All the best,

**Ian Cardiff**



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