

We have no evidence to suggest that spreading hen manure e.g. from laying birds (as opposed to litter) presents any risk of botulism to cattle.

Silage - If litter has been spread on silage ground, it is advisable to raise the cutting blades so that the grass is cut less close to the ground. This will reduce the risk of decaying matter being included in the silage cut.

Water - Washings from poultry houses and yards should be collected in tanks rather than be allowed to flow onto adjacent land.

Contaminated bedding - Do not use litter, or sawdust or shavings that may have had contact with broilers, as bedding for cattle.

2. Vaccination

An effective vaccine against botulism in cattle can now be obtained through your veterinary surgeon. A DARD survey of veterinary practitioners indicates that this vaccine has been successful in helping to control botulism in cattle in Northern Ireland. This vaccine may only be obtained by your vet through a special treatment authorisation procedure. This process takes about a week. It is important to remember that two doses of vaccine are required at an interval of 4 to 6 weeks. To be effective, the vaccine must be given

prior to exposure to the disease risk. Cattle receiving only one dose may not be fully protected.

It is important to remember that vaccination should not be used as a substitute for preventing exposure of cattle to broiler litter that may contain carcass material.

**REMEMBER -
Prevention is better than cure!**

Protecting Public Health

There are seven different botulism toxins. The toxins usually associated with causing disease in cattle do not affect humans. However, where the disease is suspected on a farm, the Food Standards Agency (FSA) in Northern Ireland requests that all milk and meat from the affected group of animals be with-held from sale for human consumption for a period of 14 days after the last case.

Further information and advice may be obtained from DARD's Veterinary laboratories at Belfast and Omagh by telephoning (028) 9052 5701 or (028) 8224 3337

Botulism in Cattle



Background

Botulism has emerged as a threat to cattle in Northern Ireland in recent years. The disease is caused by toxins produced by bacteria called *Clostridium botulinum*. These bacteria are commonly found in the environment and the toxin is produced in decaying carcasses and vegetable matter.

Investigations provide circumstantial evidence that broiler litter is a risk factor for many current outbreaks of botulism in cattle. The presence of the carcasses of birds that have died during production is regarded as the likely source of toxin. It is speculated that even small fragments of carcasses transferred onto pasture by scavenger animals, such as foxes, dogs or crows, can pose a risk to grazing cattle.

We have no evidence to suggest that exposure to hen manure e.g. from laying birds (as opposed to deep litter) presents any risk of botulism to cattle.

Scavengers may gain access to this material after it has been stacked outside or spread on pasture. Therefore, poultry litter should not be accessible to dogs, foxes, crows or other scavengers that may carry carcasses onto adjacent pasture or into cattle housing.

If you suspect botulism in your cattle

Contact your veterinary surgeon as soon as possible;

Remove the affected group of cattle to alternative grazing/housing as soon as possible

What are the clinical signs

Botulism causes muscle paralysis and can affect cattle of all ages.

The clinical signs include:-

- ▶▶ *lack of muscle tone resulting in progressive flaccid paralysis.*
- ▶▶ *muscle tremors, inco-ordination, hind limb stiffness, reluctance to move.*
- ▶▶ *muscle weakness, first in the hindquarters, then progressing to the forequarters, head and neck.*
- ▶▶ *animals may lie on their chest with the head turned towards the flank (similar to cows with "milk fever").*
- ▶▶ *inability to chew or swallow and drooling of saliva*
- ▶▶ *protrusion of the tongue*
- ▶▶ **sudden death.**

Protecting your herd

Treatment of botulism in cattle is rarely successful. It is therefore better to prevent the disease occurring. There are two important ways in which you can reduce the chances of an outbreak of botulism in your cattle.

- **Prevent access to contaminated feedstuff and bedding,**
- **Where there is an unavoidable chance of exposure to broiler litter, vaccinate prior to turnout.**

1. Contaminated Forage

Grazing - Spreading of poultry litter on pasture cannot be recommended. If it must be spread, animals should not be allowed onto that pasture until at least the following grazing season. This is because fragments of carcasses may persist on pasture for a considerable time. If poultry litter must be spread, it should be deep-ploughed into arable ground. It should not be spread on a windy day in order to prevent contamination of adjacent fields. Any animal or bird carcasses, or portions of carcasses, visible on pasture or in cattle houses, should be promptly removed. Even small fragments of carcasses may be dangerous to cattle and should be disposed of carefully by incineration or rendering, as required by EU Regulation No. 1774/2002.