

CASE REPORT
INFECTED INJURIES

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HISTORY

In a group of 78 Weaner Red Deer Fawns (mixed sex), 3 died and 15 others were severely affected when lower limb abrasions became infected with Corynebacterium pyogenes and Fusobacterium necrophorum. The abrasions were caused by sharp objects in the yards used to house the fawns following weaning. The infections were mostly localized at the site of injury but in some cases further spread into body cavities resulted in death.

Weaning was accomplished over a two day period, 17th and 18th June 1986. Four days following this, the first case was presented with 5 individuals showing lameness. These were separated from the rest of the group and they, and all subsequently affected animals, were housed separately for each of treatment.

CLINICAL EXAMINATION

On examination, each individual had an obvious abrasion on the affected leg which had become infected - there was either an open suppurating wound or there was an area of necrotic skin, corresponding to the area of initial injury to the leg, which was sloughing and could be removed to reveal a large infected wound. It was obvious that the initial abrasion had been minor but the secondary infection was severe. If the initial injury had been in the area of a joint, in some instances the joint capsule beneath the infected wound had also sloughed resulting in a large defect of the joint capsule and an obvious infective arthritis. Likewise, injuries to the foot had resulted in separation of the claw at the coronary band.

TREATMENT

The most severely affected were anaesthetized (Xylazine 20mg I/V#¹), the wounds debrided with a proteolytic spray (Anizyme*²), treated with topical antibiotic powder (Terramycin Powder+³), dressed (Hibinet gauze) and bandaged (Elastoplast 7.5cm), and each animal injected with parenteral broad spectrum antibiotic (Terramycin LA 1ml/10kg+).

The following day one animal died and was autopsied revealing spread of infection from a wound in the area of the carpal joint of one foreleg into the thorax. Samples from the wound and the pyothorax were cultured revealing a heavy growth of Corynebacterium pyogenes and Fusobacterium necrophorum.

1# Rompun 2%, Bayer.

2* Veterinary Ethicals Ltd.

3+ Pfizer Laboratories Ltd.

PREVENTION

A thorough examination of the area in which the group were housed was undertaken. After initial weaning in the deer shed the weaners were moved into a covered yard which had been converted from sheep yards into two large pens, each 15m x 10m with diamond mesh gates. Deep straw litter overlay a clay floor. Observations were made for areas where traumatic injuries could occur and it was concluded that because the wounds were on the distal limbs, the likely cause of the injuries would be projections or sharp objects close to floor level.

The main area of concern was a concrete ledge with a sharp edge beneath the feeders (Fig. 1). It was felt that at feeding time and also during movement when disturbed, these sharp ledges were resulting in abrasions to the distal limbs. The ledge was approximately 10cm. above ground level and projected out by a similar dimension.

Another area of concern was the mesh gates, where it was felt injuries could occur if numbers of animals were forced against the gates as during human entry to the yards. It was suggested to the owner that these areas likely to be causing the injuries should be protected in some manner. This was accomplished by attaching a diagonally cut length of 100m x 50m timber between the ledge and floor (Fig. 2). Also, sacking was attached to the inside of the mesh gates. The litter was removed, the floor disinfected (Dettol) and the litter replaced with fresh straw.

The five individuals already treated were considered to be the tip of the iceberg. Moving quietly through the mob more lame individuals were noticed. It was obvious that the incidence of abrasion was likely to be very high and consequently all that was necessary was for these abrasions to become infected (a likely occurrence in old sheep yards) resulting in a high percentage of severely infected abrasions and possible death. At this stage (7 days after weaning) the whole mob was given an antibiotic cover (Terramycin LA 1ml/10kg) to control this infection until the abrasions (that had occurred prior to the protective work to the yards being done) had healed. A further 10 (worst affected) were removed from the large mob and transferred to the isolation group.

The 15 in isolation were treated twice at weekly intervals with antibiotic injection (Terramycin LA) and also the owner treated the wounds topically with a mastitis preparation (Bovaclox DC++⁴) which, because of its oily base, was considered to have good penetration qualities. Recovery was rapid in those individuals without joint, tendon and/or foot involvement and these were soon returned to the large group. Those with joint tendon and/or foot involvement made slow but steady improvement until healing was complete.

No further losses were experienced due to this condition and no further animals were added to the isolation group.

4** Glaxo Animal Health Ltd.

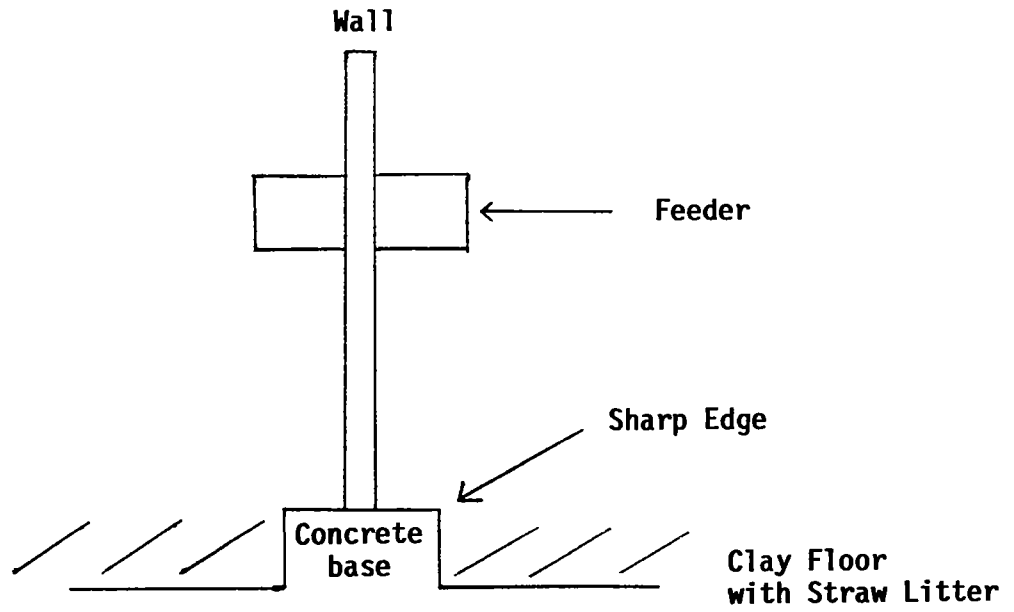


Fig. 1 Base of Feed Troughs before attachment of diagonally cut lengths of 4" x 2"

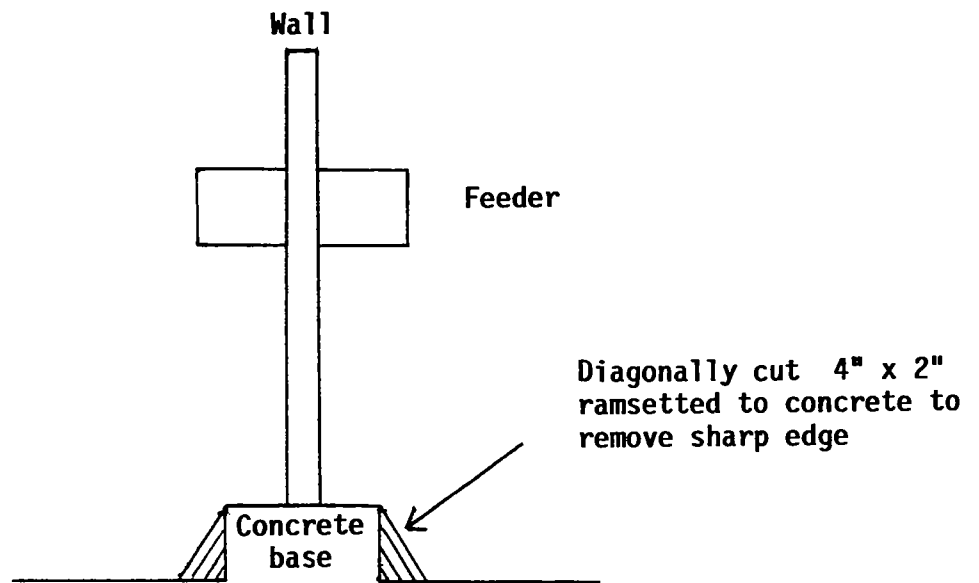


Fig. 2 Base of feeders following repair to remove sharp edge