

Workshop - HANDLING YERSINIOSIS OUTBREAKS

Chairman - C.G. Mackintosh

Workshop recommendations

A. Confirm diagnosis of Yersiniosis (*Yersinia pseudotuberculosis*)

- (i) Case history of outbreak: age of affected deer, numbers of affected, dead and at risk, predisposing factors (weaning, underfeeding, transport, climatic conditions etc.).
- (ii) Examination of clinically affected animals: diarrhoea, dehydration, elevated temperature. Take faecal samples for culture.
- (iii) Necropsy of dead animals: gross lesions of yersiniosis usually include severe haemorrhagic enteritis with ileum, caecum and colon most severely affected. Intestinal contents bright red and watery. In some cases a fibrino-necrotic pseudomembrane may cover the mucosal surface. Mesenteric lymph nodes often enlarged and haemorrhagic. Pathological changes usually confined to the abdominal cavity.

Differential diagnosis may include Yersiniosis, Salmonellosis, Malignant Catarrhal Fever, Clostridial infections etc.

Specimens for laboratory examination should include:

liver - fresh and fixed
mesenteric lymph node - fresh and fixed
small intestine - fresh and fixed (handle carefully)
rib - fresh for culture and clostridial F.A.T.
brain - fixed
kidney - fixed.

Refrigerate fresh samples as soon as possible after collection.

B. Treatment of affected animals if provisional diagnosis of Yersiniosis made

- (1) Yard and examine all animals.
- (ii) Separate clinically affected animals until recovered:
 - (a) severely affected (weak recumbent): treat intensively with fluid therapy (preferably I/V), parental antibiotics (tetracyclines, trimethoprim/sulphonamide or chloromycetin) and proprietary scour medicines for 3 or 4 days;
 - (b) not severely affected: 2 doses long-acting tetracycline 48 hours apart or daily injections of tetracycline or trimethoprim/sulphonamide for 4 days (+/- proprietary scour medicine).

C. Treatment of unaffected in-contact deer

- (1) If the outbreak is severe with a large proportion affected treat all in-contacts with a single injection of long-acting tetracycline.
- (11) If only sporadic cases occurring then may choose to *either* treat all in-contacts with L.A. tetracyclines *or* keep a close watch on in-contacts and treat only affected animals if they occur or treat the whole group if any further cases occur.

The decision to treat in-contact animals depends on the high value of animals, the cost of treatment, farmer co-operation, extent of the outbreak, likelihood of bad weather, exposure to stress.

D. Practical tip for mass treatment

Use a plastic tube with a luer-lock fitting at each end - connect a needle at one end and an automatic vaccinating gun or syringe at the other.

E. Advice to farmers

To avoid further outbreaks:

- (1) minimise stress;
- (1i) provide adequate winter feed and shelter;
- (11i) anticipate bad weather - move animals into sheltered paddocks and increase feed allowance;
- (iv) wean pre-rut and ensure animals enter the winter in good condition.