Role for veterinarians in management of sheep measles

by Bruce Simpson, Biosecurity Consultant

The role of the veterinary profession in the control of Taenia *(and* Cysticercus*) ovis is increasing. Whereas practising veterinarians were generally not involved in the management of hydatids and sheep measles during the years of regulatory control, they are now recognised by farmers as their major source of information on sheep measles.*

It is not only rural practitioners who are involved – companion animal practitioners also have a part to play in helping minimise the negative impacts of sheep measles on the meat industry. Pet dogs and hunting dogs become infected with *T. ovis* and contribute to contamination of pastures with *T. ovis* eggs that, in turn, may infect sheep. It seems unfair that farms on which control measures are being applied most effectively are the most susceptible to serious infections arising from dogs crossing, or passing near, the property.

Veterinarians should encourage all dog owners to avoid feeding untreated sheep meat to their dogs and ensure their dogs are treated with a cestocide before they visit farms or farming areas.

The reproductive potential of *T. ovis* is remarkable. The ingestion by a dog of a single viable cyst will almost certainly result in infection. Within about 35 days, that dog infected with a single tapeworm can be expected to be passing up to 250,000 eggs per day in its faeces.

Use more than one control strategy

It is because of this huge reproductive potential that Ovis Management Ltd (OML), tasked by the sheep meat industry to encourage effective control of sheep measles and to monitor prevalence, recommends farmers should not rely on a single control strategy. Freezing all sheep meat before it is fed to dogs and ensuring dogs cannot access carcasses can be very effective but is not fool-proof.

Similarly, dosing dogs with an effective cestocide at four-weekly intervals should remove any tapeworms before eggs are produced, but failure to rigidly maintain the programme can allow tapeworms to mature and pastures to become contaminated. Treatment at longer intervals carries a greater risk of *T. ovis* maturing and contaminating pastures between treatments. During the period of regulatory control, farms were regularly inspected to ensure sheep slaughtering facilities met prescribed standards and dog feeding practices were "safe". In addition, there was compulsory treatmentof all farm dogs every six weeks. Despite that, sheep measles continued, although at a much lower prevalence than before the introduction of the control programme.

Survey shows risks still present

A recent survey commissioned by OML indicated that:

- 76 percent of sheep farmers considered their veterinarian to be their primary source of information on control tools for sheep measles, up from 66 percent recorded in 1998
- 80 percent of sheep farmers continue to feed sheep meat to their dogs, although less frequently than before – dog biscuits are now fed more commonly than sheep meat
- virtually all respondents stated that they treated sheep meat before it was fed to dogs, although it was unclear whether the standard of treatment was sufficient to kill the cysts of *Cysticercus ovis*
- 36 percent of farmers surveyed said they were treating their dogs for sheep measles monthly; a further 50 percent said their dog treatment regime was at least three-monthly.

Nuisance remains

Although the voluntary control of sheep measles is proving remarkably successful, with the recorded prevalence in slaughtered lambs being little different from that during the period of regulatory control (Figure 1), the parasite remains a nuisance to the meat industry, and individual farmers suffer serious losses. In one case, heavy infections were found in lambs slaughtered from a farm that had not previously had a significant problem. The source of infection was a dog recently purchased and brought onto the farm without being treated for *T. ovis* either before or immediately following its introduction. A "storm" of infection on a neighbouring farm may have resulted from the same source.

One dog, one slip-up, and two farmers incurred thousands of dollars in costs.

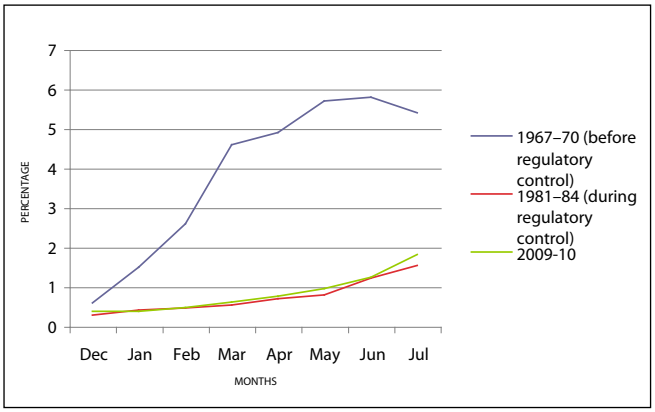

Figure 1: Percentage of lambs slaughtered in which Ovis was detected

Ovis Management Limited (OML), is owned by the Meat Industry Association of New Zealand and financed by meat processing companies. OML is charged with encouraging best management practices for the control of sheep measles and with monitoring the prevalence of sheep measles in slaughtered lambs. ■

For a guide to best management practices for sheep measles contact Dan Lynch, Project Manager, OML, PO Box 2092, Palmerston North.
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