

Figure 3. The close relationship between working dogs and sheep increases the risk of shared tapeworm infections.

charcoal. Treatment of overt cases of toxicity requires hospitalisation and so is frequently beyond the scope of many large animal practices.

Sheep dogs may scavenge objects that can obstruct the gastrointestinal tract, including bones, stones and ear tags. Intravaginal progesterone-releasing devices used for the synchronisation of oestrus in sheep (CIDR OVIS 0.35g Vaginal Delivery System for Sheep, Zoetis; Chronogest CR 20mg controlledrelease vaginal sponge for sheep, MSD Animal Health, for example) can also be problematic. They are radiolucent, often present in significant numbers, are easy to swallow and attractive to curious dogs. As such, persistent vomiting and malaise should be taken seriously in a farm dog. On a seasonal basis - late summer

to autumn - progesteronereleasing products should be a differential for a foreign body.

The farm vet should be familiar with the presentation of these conditions to ensure prompt referral in suspect cases. He or she should also take every opportunity to discuss medicine stewardship on farm, including the risks of poor storage and disposal.

## Veterinary input into breeding

If pregnancy is accidental and unwanted, up to 45 days postservice it can be terminated with the use of aglepristone (Alizin 30mg/ml, Virbac) at a dose rate of 10mg/kg, administered subcutaneously and repeated 24 hours later. For best efficacy, this should be administered after the end of the current oestrus. This treatment is contraindicated if the bitch is diabetic, Addisonian, or has impaired renal or hepatic function. If the pregnancy is maintained, serious consideration should be given to screening the parents and/or offspring for major hereditary conditions. The relevant conditions for Border collies, and the means of testing, are covered in **Table 1**.

These conditions all impinge on both animal welfare and the dog's working ability. Treatment options are either limited or nonexistent. Farmers may invest significantly in a working puppy and screening is prudent to protect that investment.

An in-depth knowledge of canine parturition may be beyond the scope of large animal practitioners, so they should be familiar with the indications for intervention. These indications include (Hill et al, 2011):

- extended gestation (>67 days)
- failure to proceed from
  Stage 1 labour after
  36 hours
- failure to produce a pup after purposeful straining for more than 20 minutes
- failure to complete Stage 2 labour.

## Euthanasia of working dogs

Another common reason for attending a farm dog is euthanasia. Practitioners should be willing to offer advice on quality of life in these animals, because some conditions common to older working dogs are eminently treatable – osteoarthritis, for example – and some owners can be prone to fatalism. Options for investigation and treatment should be discussed to allow the client to make an informed decision.

Consent for euthanasia should be obtained - blank forms can be stored in the practice car. Vets in the field may also find themselves without many of the materials used to facilitate euthanasia - including narrow gauge needles and catheters, appropriate sedatives and muzzles. The practice should consider keeping a small supply of these consumables to ensure euthanasia is carried out in a humane and professional manner.

## **Risks to livestock**

Tapeworms are commonly transmitted between sheep and dogs (**Figure 3**). When sheep are the definitive host – with *Moniezia* spp., for

"Orthopaedic injury can be difficult to assess in the absence of radiographs, and the stoic nature of working dogs may mask severe pain"