Background comments

As the number of dairy farms in New Zealand increase, the number of sheep and beef farms decrease. With the decrease in sheep and beef properties comes a decline in the numbers of trained stock working dogs. Dairy farms tend to have fewer working dogs due to differences in stock management and also the risk of some diseases (Neospora abortions for example). Certainly the number of young people interested and capable of working a dog with stock is diminishing. The number of jobs and level of wages available to young workers are much higher in the dairy industry than on more traditional farms, leading to an exodus of young people from this sector. The impact on the individual value and numbers of the New Zealand farm working dog is yet to be seen.

The economic value of a farm working dog is hard to quantify. They are indispensable members of the staff on a sheep or beef farm and take little pay in return. The cost of purchase, training and maintenance are set over a dog’s lifetime. The loss of a dog through illness or injury can be not only inconvenient but costly to a farmer. The benefits of minimizing illness and injury as well as maximizing the length of a dog’s working career are obvious.

TeamMate is a three to five year longitudinal research study of farm working dogs on Vetlife client properties from North Canterbury to Central Otago in the South Island of New Zealand. Now, over a year since its inception and just completing round two of on farm examinations, the TeamMate project is well underway. The goal of the project is to identify factors which will increase the quality and length of the working life of the New Zealand farm working dog. Enrolment by interested farmers is voluntary and currently limited to Vetlife clients. As the project matures, it would be desirable to engage other interested practices in order to gather data over the entire country.

At the time of writing this paper there are 478 dogs enrolled from 105 properties. Eligible dogs must be at least 18 months of age and used regularly for working stock. Biannual physical examinations on farm and questionnaires are conducted by Vetlife veterinarians.

The exams are approximately six months apart, with one at a time when the dogs are not in heavy work and the second during, or shortly after, a period of heavy work.

Data collection

Background survey information is recorded including details of vaccination and worming regimes, feeding practices, type of stock worked, terrain worked, pre-existing injury or disease and description of shelter and transportation. As the study continues
nested trials will be completed. The first of these trials is an internal parasite survey due to occur in the third examination period later this year. The Massey EpiCentre is currently entering and processing the data from the first exams (which took place in August–October 2014). These data will be ready for analysis over the winter.

**First examinations**

Thorough clinical exams were done on each enrolled dog and all abnormalities noted. This will provide an indication of the incidence of certain diseases and injuries and their impact on the dog’s working life. Soundness at the trot was evaluated and range of movement assessed on all major joints. A basic eye exam was completed using a penlight in a darkened area. All dogs were body conditioned scored (BCS) based on the World Small Animal Veterinary Association (WSAVA) 1–9 scale (WSAVA 2013a). Muscle condition score (MCS) using the WSAVA muscle condition scoring system was also recorded (WSAVA 2013b). Weights were recorded and morphometric measurements taken to help categorize dogs into different body sizes. We intend to follow body and muscle condition to correlate these to incidence of disease and injury, as well as length of working life.

**Findings**

It was found all dogs ranged from 2–6 for body condition score with the majority lying in the 3–5 range. Generally, farmers tended to try to keep all dogs in a team to the same condition score, i.e. they all had their own perception of what ideal body condition was regardless of what type of work the dog was undertaking (straight endurance work versus work that might require more muscle mass, like yard work for example). Muscle condition scoring proved slightly more complex, as the scale was developed for muscle wastage due to disease or illness, rather than lack of muscle development (younger or unfit dogs) or muscling in extremely lean dogs, such as those which do lots of endurance work (mustering dogs). For the second round of exams the muscle scoring has been altered to more accurately represent muscle mass in fit, healthy working dogs.

Types of food and feeding practices were relatively consistent. Most farmers were feeding some form of meat in combination with a commercial biscuit, roll or meal. It was great to see that the old practice of feeding every other day is now quite uncommon. Almost all dogs were fed daily regardless of whether they were in work or not. The nutritional quality of diets was variable. As there were few dogs fed solely on a commercial diet with defined ingredients, it is hard to accurately assess the nutritional value of any one feeding regime. Different types of diets will be compared to BCS, MCS and incidence of disease and injury. An interesting comment was made by several farmers that they knew of dogs that choked on dog roll, some dying in the process. One dog was fed a ‘round’ of dog roll and within minutes was choking. The dog died while the owner attempted to dislodge the offending chunk of dog roll. In our Alexandra clinic a post-mortem on another dog, found dead in its kennel overnight, was found to have asphyxiated from a piece of dog roll lodged in its throat. There were at least four other unsubstantiated incidents of dogs dying after choking on dog roll.

All farmers were found to be worming their dogs with the intention of controlling both roundworms and tapeworms, including *Taenia ovis*. It was apparent that many farmers believed they were dosing appropriately but were not. The dosing for sheep measles was the most varied with treatment ranging from one to six monthly.
Shelter arrangements were inspected and many different varieties of kenneling were seen. They can be roughly classed into two categories: Dog motels consisting of a wooden kennel with a wire enclosed run, or various shelters with a chain to restrain the dog within an area around the kennel. It was not uncommon for kennels to be modified to make them warmer. Door flaps, various types of windbreak or sunshade materials and polystyrene insulation were among the modifications used to make kennels warmer or cooler for dogs depending on the season. The use of bedding in kennels was variable. Some owners went to great lengths to find a substance that the dog would leave in the kennel trying several different types before succeeding. Types of bedding included: carpet, sacks or wool packs stuffed with straw or wool, old duvets, old horse covers and loose materials like straw or wool. In cooler areas some owners were using commercial coats to keep their dogs covered overnight, and some even using them during the day. Almost without exception, the owners commented that once they got used to wearing the covers, dogs ‘lined up’ for them to be put on in the evenings.

Concluding comments

As with many observational studies, there are often as many or more questions that arise from data collection as there are questions answered. What effect does a warm, dry kennel have on the quality of sleep that a dog gets at night? If they don’t get a good night’s sleep are they, like us, more prone to accidents and injury? If they do get a good night’s sleep, is their recovery better and are they more productive? What is the ideal BCS for a working dog? Ideal MCS? Is it the same for all types of working dogs? Are we feeding these dogs the best diet we can? Should they all be fed the same? Does a poor diet significantly increase disease and injury? Should we be de-sexing non-breeding dogs?

Along with specific questions posed through the study, there is lots of anecdotal information and good discussions with farmers on information they are interested in and more ideas for the next rounds of exams and questionnaires. This has been an interesting experience to be involved in for veterinarians in clinical work, and we believe that it will provide essential baseline information for future work concerning New Zealand farm working dog health.

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References

For formatting purposes, all original long URLs have been condensed using the ow.ly format.

