



MAY 2005



Registered by Australia Post  
Publication No. PP437149/00024



# BREEDERS RESEARCH FUND

## The epidemiology of *Neospora caninum* in dogs

Research funded by the Canine Control Council (Queensland) Breeders' Research Fund has provided intriguing insights into this important disease and how it may impact upon breeding dogs. *Neospora caninum* is a protozoan parasite of dogs. Dogs may become infected from their dam (presumably by the parasite crossing the placenta) or ingesting uncooked meat containing the parasite. However, little is known about the biology of the parasite in its canine host. Disease due to the parasite is most commonly seen in pups. Typically, such pups show progressive nervous and muscular signs. Treatment of the disease is difficult and many infected pups die or are euthanased. Not all infected dogs develop symptoms of disease. Before this project, nothing was known of how common the parasite was in Brisbane dogs and, therefore, what level of concern dog breeders should have in regard to it.

Blood samples were collected from 146 purebred dogs and 151 crossbred (stray) dogs and the sex and approximate age of each animal was recorded. The presence or absence of antibodies to the parasite in the blood of each animal was then assessed using a serological test, the Indirect Fluorescent Antibody Test (IFAT). The presence of antibodies against the parasite is currently the best method available for detecting infected dogs.

Results indicated that 10.4% of purebred dogs had antibodies to the parasite, but only 3.3% of crossbred dogs were positive. The reason for the

more than three-fold greater risk of infection in purebred dogs compared with crossbred dogs requires further work, but there was some evidence that certain breeding families (or breeding lines) were more likely to carry the infection. This would not be surprising given that it has been established that the parasite can be transmitted from the bitch to her puppy. However, this study also indicated that post-natal transmission of the parasite is an important factor in parasite biology in Brisbane dogs. The routes of such transmission remain unclear, but factors that might be involved include diet, particularly feeding raw beef.

Researchers at the University of Queensland School of Veterinary Science, the Applied Animal Biotechnology Group (of the Qld. Department of Primary Industries and Fisheries) and the University of Technology, Sydney, are collaborating to provide an improved diagnostic test that will detect the presence of the parasite (as opposed to a dog's immune response to the parasite). Such a test is vital in unravelling further the mysteries of *Neospora* transmission in Brisbane dogs, and what impact it is having upon their reproductive performance.

Breeders interested in further details on this project should contact Dr. Shirley Turner on 0438 196 030 or Dr. Glen Coleman on (07) 3365 2119 at the School of Veterinary Science at the University of Queensland. ♦

# The Nova Scotia Duck Tolling Retriever

**THE VERSATILE REDHEAD!**

*Article supplied by Lidriva Duck Tollers*

If you're looking for a keen, agile retrieving dog or a medium-sized energetic family dog then the Toller (as they're affectionately called) may be for you! This compact, intelligent retriever is a very versatile dog – competitive in a variety of dog sports including obedience, agility, conformation, tracking and non-slip retrieving as well as making a great companion for the active family or individual.

The Toller is the smallest of the retrieving breeds with the dogs standing at 18–21 inches and the bitches 17–20 inches. The breed originated in Nova Scotia, Canada, where hunters wanted an agile, playful dog to "toll" (or "lure") curious duck and geese to within range and then have the capability to retrieve the game once downed. A Toller's powerful jaws are able to hold an adult goose with ease. Foxes have been observed in the wild tolling in their prey and the Toller's appearance reflects that of a

fox – the exact origins of the breed are uncertain but they are thought to have been bred by the Canadian hunters from a variety of retrievers, cocker spaniels and local farm collies.

The Toller has a medium length, water repellent double coat, in any shade of red or orange with any combination of the following white markings – blaze or part thereof, feet, chest and tail tip. Lack of white on an otherwise quality dog is not to be penalized. The tail is heavily plumed and it is a feature of the Toller that, when in motion, the tail is carried above the topline – preferably curving over but not touching the back.

The Toller has a lively playful personality, although initially can be reserved with strangers. They are easy to train but bore quickly with too much repetition and respond best to positive training methods. The Toller is an avid retriever and swimmer, having great endurance with a big heart. The "Toller Scream" is quite characteristic of many Tollers – this is an ear-piercing screech of excitement which sounds as though the dog is being put through a shredder!

Tollers, similar to the other retrievers, can suffer from a variety of health concerns, including hip dysplasia and progressive retinal atrophy, but breeders in Australia are striving to produce a healthy, happy, versatile Toller! ♦

