**PARATUBERCULOSIS PREVALENCE IN NEW ZEALAND PASTORAL LIVESTOCK**

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Paratuberculosis (PTb) is a chronic infection that occurs worldwide and affects domestic ruminant species. Prevalence estimation is the starting point of any sound disease control program. New Zealand commercial sheep, beef and deer farming is characterized by a year-round pasture-based system, with most farms being mixed species, grazing the same pasture block simultaneously or in succession. The objective of this study was estimating the PTb prevalence in New Zealand sheep, beef cattle and deer herds, and evaluating a possible association between co-grazing species.

Animals from a stratified random selection of 237 farms (>8,000 individual animals) were sampled by veterinarians of 28 veterinary practices, including 150 beef cattle, 102 sheep and 91 deer mobs, respectively, from 7 of 16 regions. Twenty animals from each species mob present on farm were randomly selected for blood and faecal sampling. In addition, any animal in the mob that was clinically suspected to have PTb was sampled, too. Single-pool faecal samples were prepared from sheep (20 animals), and double-pool samples from beef cattle or deer (10 animals/pool) before culture testing in a liquid media culture system (Bactec) for *Mycobacterium avium* subsp. *paratuberculosis*. Blood serum of individual animals from culture negative mobs was tested by a Pourquier® ELISA (sheep and cattle) or Paralisa® (deer).

An infected mob was either culture or Elisa positive in randomly selected or clinical suspect animals. A logistic regression model was fitted for each species with mob level PTb infection status as outcome. Fixed effects were species on-farm, interaction between species, and region. Results to be presented at the conference will include estimation of herd level prevalence for each species and the effect of co-grazing different species on prevalence.