Herd-level risk factors associated with seropositivity for *Neospora caninum* in dairy cattle: Minas Gerais, Brazil, 2010

Haddad, J.P.A.¹, Nicolino, R.R.¹, Cançado, R.C.F.¹, Diniz, S.A.¹, Lopes, L.B.² and Melo, C.B.³, ¹Escola de Veterinária da UFMG, Preventive Veterinary Medicine, Brazil, ²Brazilian Enterprise for Agricultural Research – EMBRAPA, Brazil, ³Faculdade de Veterinária da UnB, Brazil; rafa_uenf@hotmail.com

Our objective was to determine herd-level risk factors associated with seropositivity for *Neospora caninum* in a large number of randomly selected Brazilian dairy herds. Serum samples were obtained from 2,915 randomly selected cows from 151 herds in eleven municipalities located in the Sete Lagoas microregion, a large dairy cattle region. Indirect ELISA Test (IDEXX) was used in serological diagnostic. All herd-level predictors were obtained through personal interviews with questionnaires administrated to each farm manager. A poisson model was developed using number of seropositive cows in each herd. The poisson model was choosing due to the high frequency of positive-herds. All variables were first subjected to univariate analysis, where those with a significance level (P<0.20) were subsequently used for the development of multivariate models (P<0.05). Protection factors such as embryo transfer (Incidence Rate Ratio (IRR)=0.61), use of natural colostrum (IRR=0.71) and presence bull used in cows with pregnancy failure using artificial insemination (IRR=0.83) were found in the final model. A Risk factors found in the final model was the presence of abortion as a major reproductive problem in the farm (IRR=1.23). Presence of dogs birth at the barn, at the farmer house and at an unknown place by the farmer were found as a risk factor (IRR=1.38; 1.30; 1.21, respectively). Presence of veterinary services on farm was found as risk factor (IRR=1.26) and it was considered as a possible confounder. Funding: CNPq, FAPEMIG and INCT-Pecuária.