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SEROLOGIC AND MOLECULAR SURVEY OF AVIAN INFECTIOUS LARYNGOTRACHEITIS IN ECUADOR

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Abstract
Avian infectious laryngotracheitis was officially reported in Ecuador after several acute outbreaks characterized by respiratory clinical signs, decrease in egg production, and high mortality affecting poultry farms during 2012. A serologic survey was carried out in order to obtain evidence of ILT infections in the main poultry farms of Ecuador by using a commercial screening test (ELISA - Biocheck®) to detect specific antibodies to ILTV in 2190 serum samples. This study included 92 poultry farms located in thirteen provinces of Ecuador which represents the main poultry production systems (breeder flock, laying hens, and broilers). Significant viral circulation was evident in a great proportion of positive farms/province. A high proportion of seroreactors at the herd and farm-level were detected in this study: 0.194 and 0.592 respectively, in eleven of the thirteen surveyed provinces. ITLV DNA was detected by real time PCR in 29 of the 49 pools of tracheal scraps which belong to 6 out of 7 total farms. The data obtained at the present survey provide preliminary information about the frequency of ILTV infections in Ecuadorian farms and highlight the need to improve biosecurity measures in poultry farms and particularly the use of vaccines in order to achieve a feasible control of ILT in Ecuador.
Keywords: serologic survey, avian infectious laryngotracheitis, ELISA, real time PCR.

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