Evaluation de quatre techniques de prélèvement pour détecter *Mycoplasma hyopneumoniae* chez le porc vivant

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Assessment of four sampling methods to detect *Mycoplasma hyopneumoniae* in live pigs

Four sampling techniques for *Mycoplasma hyopneumoniae* (Mhp) detection, namely nasal swabbing, oral-pharyngeal brushing, tracheo-bronchial swabbing and tracheo-bronchial washing, were compared in naturally infected live pigs. Sixty (60) finishing pigs were randomly selected from a batch of contemporaries on a farm chronically affected with respiratory problems. Each pig was subjected to nasal swabbing, oral-pharyngeal brushing, tracheo-bronchial swabbing and tracheo-bronchial washing. Nested-PCR assays were performed on all samples. A Bayesian approach was used to analyze the nested- PCR results of the four sampling methods (*i.e.* positive or negative) and estimate the sensitivity and specificity of each method. Mhp was detected by nested-PCR in at least one sample from 70% of the pigs. The most sensitive sampling methods to detect Mhp in live, naturally infected, pigs were tracheo-bronchial swabbing and tracheo-bronchial washing, as compared to oral-pharyngeal brushing and nasal swabbing. Swabbing the nasal cavities appeared to be the least sensitive method. Our study indicated that tracheo-bronchial swabbing associated with Real-Time PCR could be an accurate diagnostic tool for assessing infection dynamics in pig herds.