Poster topic 09

Use of a lung scoring method for pigs at slaughter to identify farms with high mean lung scores in the Philippines

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The main objective of this study was estimate the prevalence of high lung scores farms based on lung scores of individual animals in the Philippines. The study was conducted between 1st October 2011 and 31st January 2012 in Region III. Multistage stratified random sampling was used to select calendar days and slaughterhouses. Systematic random sampling was used to select pigs for lung scoring. The lungs were palpated and visually appraised to detect lesions of pneumonia by one experienced veterinarian. Mean lung scores of slaughtered batches originating from the same farms were compared using a Kruskal-Wallis test. The prevalence of high lung score farms (HLS) and confidence intervals was estimated using a logistic regression model. Total number of lungs scored was 1,255 originating from 305 farms. Mean batch lung scores were different among backyard and commercial farms ($\chi^2_{119.36, \ d.f. 1}, \ P<0.001$). The prevalence of HLS farms was high (30%, 95% CI 25-35%). This is in agreement with the literature and shows the feasibility of adopting a quantitative lung scoring method to monitor lung lesions in slaughtered pigs in this region. The results also suggest that some pigs can be infected late in the cycle developing lesions close to slaughter. Compared with backyard farms, commercial farms were three times more likely to have mean lung scores values higher than the mean of all farms (OR 3.14 95% CI 1.91-5.21; P<0.001). This demonstrates the effect of production system on respiratory disease dynamics in the study farms. The overall mean lung score for farms in Region III was high and the production system was associated with high mean lung scores at the farm level. It is recommended that potential risk factors associated with respiratory disease are identified and further investigated in an attempt to reduce mean lung scores on Region III pig farms.