

ASSESSING THE DIFFERENCE IN PRIORISATION OF SWINE DISEASES BETWEEN LOCAL AND NATIONAL LEVELS IN VIETNAM

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Introduction

Pig production in Vietnam is threatened by a large range of swine infectious diseases (PRRS, FMD, pneumonia...) with significant impacts on pig producers' livelihood. In this context identification of disease priority and disease management practices at swine holdings is essential for efficient surveillance of swine diseases. Under the framework of the REVASIA project on the evaluation of animal health surveillance systems in South East Asia (CIRAD), a participatory epidemiology (PE) study was implemented in a Red River Delta province, North Vietnam to characterize swine diseases and assess important diseases according to their economic impact on local swine producers and to compare it with the priorities at national level.

Materials and Methods

The study was carried out in 2012 and 2013 in Hung Yen province, North Vietnam. The study area was selected according to the importance of swine production, diversity of pig farming systems, and occurrence of swine diseases such as PRRS, FMD and CSF. Key informant interviews involving officials, veterinarians, para-veterinarians were done step by step from province level to village level in selected communes in the province. Farmer focus group discussions were held within selected villages. A range of PE tools such as proportional piling, matrix scoring, seasonal calendar, pair wise ranking, disease impact matrix scoring, and probing was applied to characterize and quantify animal production, major diseases and their impacts on producers livelihood. Qualitative data were subjected to formal statistical analysis. Semi-quantitative data were entered into database (Microsoft Excel 2007) and exported to STATA version 10 (Stata-Corp LP, College Station, TX, USA, 2007) for analysis using non-parametric statistical test.

Results

The typology of the swine production in the study area was characterized. The pressure of swine diseases was high with a large range of diseases occurring all year round in both small holders and semi-commercial farms (PRRS, FMD, pneumonia, diarrhea...). The overall median proportion of pigs in small holders that became ill in the last year, with 10th and 90th percentile range, was 40% (15-80%). Semi-commercial pig farms had a lower median proportion (30% (30-40%)) of sick pigs. However, this difference was not statistically significant ($P>0.05$). Blue ear (PRRS) was considered as the most prevalent in all semi-commercial farms but not for all small holders. This may be because of the difficulty in distinguishing clinical signs of PRRS and of other diseases such as pneumonia.

Blue ear (PRRS) was considered as the most important disease as perceived by pig producers in the study area. There were 8 indicators used to rank diseases in villages such as frequency of disease occurrence in year, morbidity, mortality, spread rate etc. PRRS scored the highest for all these indicators (from 7 to 10) indicating the most negative impact of this disease on pig production in our study area.

Discussion and Conclusions

Participatory Epidemiology (PE) is a branch of veterinary epidemiology which is based on the principles and methods of Participatory Rural Appraisal. It is used to investigate animal health problems and identify best-bet solutions within communities (Catley, 2005). In this study, group discussions were opened and interesting information on disease symptoms, seasonality of disease occurrence, and disease control were explored. Data collected from group discussion was compared with the information provided by local veterinarians to verify and understand more about disease patterns. However, it was difficult to organize group discussion of semi-commercial pig producers because they are often busy and the application of PE process takes time. Similar studies are ongoing in other locations to validate the results.

According to the national surveillance strategy, the swine disease surveillance priorities in Vietnam are FMD and PRRS. Results of this study showed that at local level FMD was not seen as a priority (ranked in 4th position). This difference in surveillance priority between national and local levels will have negative influences on the performance of the surveillance system. In addition, small pig holders and semi-commercial pig producers have different disease management practices to deal with important diseases such as PRRS. The discrepancies in strategies regarding animal health management between pig farming systems create a real challenge for disease control in the province.

Literature cited

1. Catley, A. (2005). Participatory Epidemiology: A guide for trainers. African Union/Interafrican Bureau for Animal Resources, Nairobi.