

Biosecurity practices and in-between contacts in commercial and hobby poultry premises in Belgium

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1. Introduction

In some areas of Belgium the commercial poultry density exceeds 5000 animals/km². With the rising global concern of emerging diseases, appropriate biosecurity measures are very important, especially in such densely populated areas. These measures aim to either prevent the introduction of infectious diseases or are applied to manage or eradicate them. To this end, the coexistence of commercial and hobby poultry flocks in the landscape must not be forgotten, given that hobby poultry flocks might play a significant role in the spread of infectious diseases. Therefore, the objective of this study was to investigate the biosecurity status of the whole Belgian poultry population.

2. Methodology

80 stratified-randomly selected commercial poultry premises were subjective to an oral questionnaire. Additionally 2000 hobby poultry holdings, situated in a radius of less than 3km around the selected commercial flocks, were contacted by regular mail and asked to fill out an online questionnaire. The surveys were conducted between September and December 2008. A poultry premise was defined as commercial when more than 200 birds were kept; otherwise it was defined as a hobby premise.

3. Results

In the commercial poultry sector a response rate of 48% (39/80) was achieved, in the hobby sector this was 18% (350/1900). More than 85% of the commercial farms are implementing 11 biosecurity measures, predominantly concerning housing type, flock management and sanitation measures. However less than 85% of the respondents are implementing the following actions: fencing the farm, mechanical ventilation, permanent rodent control and cooled depository for dead birds.

In contrast, biosecurity practices were less frequently applied by hobby poultry premises: 67% of the backyard flocks are raised free-range with wild birds having access to the supplied food and water. Only 9% sanitizes their poultry sheds, 20% calls a veterinarian when health problems arise and 40% performs rodent control. The most popular method of disposing of dead birds is burial (75%).

Several contacts between hobby and commercial farms were identified: 6% of the commercial farms also keep hobby poultry on the farm, 30% sell live poultry to hobby poultry holders and 6% have employees that keep poultry at home. 15% of the commercial farmers visit bird shows at least once a year; yet no poultry were purchased at these shows. 21% of the hobby poultry farmers visit bird shows at least once a year; 6.3% of them also purchased or sold poultry at these shows.

4. Conclusion

Professional poultry farms in Belgium generally have an acceptable biosecurity

level, although improvements are still possible. In contrast, biosecurity practices in hobby poultry premises are mostly lacking. In addition, this study revealed several types of contacts between commercial and backyard poultry flocks. Therefore, hobby poultry premises pose a potential risk for disease spread towards the poultry industry.