2000, issue 37 - Abstracts

AEEMA MEETING, May 18th, 2000 - Epidemiology and wildlife in Europe

Epidemiology and wildlife in Europe: Introduction

F. Moutou

This first presentation will define the subject of the meeting and present the global agenda. It is also the occasion to recall the reasons of this choice. From different observations, it has been possible to show that human and animal pathogens, including zoonosis agents, are circulating among some of our wild species. The challenge is both sanitary and economical, besides any increase in our knowledge and the description of existing epidemiological cycles. Some examples, added to those developed in the other presentations, will show the importance of the questions and the challenges to be handled.

Sampling in free living populations: questioning sample size

Emmanuelle Fromont & Sophie Rossi

When planning an epidemiological survey concerning wildlife, deciding sample size is essential as such samples are difficult to obtain. Here we present the principle of the needed sample size establishment to evaluate a prevalence or to compare two prevalence. With a sensitivity analysis we show the influence of actual disease prevalence, of population size, of expected precision and of admitted risk, on sample size. Within a wildlife survey, all the possible bias are also to be considered. We present the consequences of these biases on the survey results as well as possible methods to correct them, early or late during the survey.

SAGIR Network, national network for the sanitary monitoring of wildlife in France

F. Lamarque, C. Hatier, M. Artois, P. Berny & C. Diedler

Created in 1986 by the Office national de la chasse (ONCFS), the SAGIR network is a national system of surveillance of wildlife diseases. It is organized as a partnership between the ONCFS, the French Agency for food sanitary security of Nancy, the toxicology laboratory of the national Veterinary School in Lyon, the departmental veterinary laboratories and the departmental hunters' federations. During its thirteen years of life, SAGIR has permitted to highlight new diseases, to collect numerous data on wildlife pathology and to monitor several important die-off. Since a few years, SAGIR has been more and more often associated to programs dealing with the sanitary relationship between wildlife and livestock. In spite of several biases which prevent the SAGIR network to be a true epidemiosurveillance network, the SAGIR remains a precious tool.

Epidemiological surveillance of wild boar diseases transmissible to domestic animals and man

J. Hars, E. Albina, M. Artois, P. Boireau, Catherine Crucière, B. Garin, D. Gauthier, C. Hathier, F. Lamarque, A. Mesplède & Sophie Rossi

During the last ten years, the huge development of the French wild boar populations and of the breeding of pigs in the open, has increased the risk of diseases transmission between wild and domestic Suidae. The epidemiosurveillance of the diseases having an impact on economics or on public health, mainly: Classical Swine Fever, Aujeszky disease, Brucellosis, Tuberculosis and Trichinellosis, is based on a national programme of serological surveillance and on departmental surveys corresponding to local problematics. These programmes, built

on collection of samples on hunted animals, are implemented beside the national network of surveillance of wildlife diseases (SAGIR) which only analyses the mortality causes. When the Classical Swine Fever remained confined in the focus which has been striking in the Northern Vosges since 1992 and which is spontaneously decreasing, the French wild boar populations are widely infected by Brucella suis 2 and, at a lesser extent, by the Aujeszky virus. Our knowledge on Trichinellosis and Tuberculosis are currently very incomplete.

The badger and bovine tuberculosis

J. Eves

A study with the aim to evaluate the importance of badger in bovine tuberculosis was conducted from 1989 to 1994 in Offaly country, Ireland. Bovine tuberculosis incidence evolution was compared between two areas: one where badgers were removed and the other without any control of badgers' populations. The result of this study shows that the removal of badgers is linked to a significative decrease in the number of cattle infected with tuberculosis.

The control of wildlife infectious diseases in Europe

M. Artois, R. Delahay, V. Guberti & C. Cheeseman

The need to control infectious diseases within their natural reservoir brings the authorities to set up new programmes. This paper surveys positive and negative aspects drawn from red fox rabies and wild boar classical swine fever experiences. It underlines the necessity of a better cooperation between professionals of different fields in order to be able to take the right decisions. However, not magic recipe exists today to face the diversity of the sanitary problems that may emerge in wildlife.

AEEMA MEETING, May 19th, 2000 - Communications

Creation of a surveillance network for food alerts by AFSSA

S. La Vieille & Barbara Dufour

In June 1999, a surveillance network of food alerts was created into AFSSA. The aims of this surveillance network are: to give information about food alerts inside agency management; to do statistical analysis of the different types of alerts. The alerts may come from different sources: most of them come from the European network called RASFF (Rapid Alert System For Food); but they also may come from the ministries in charge of Health, Agriculture and Consumer Affairs respectively or from other agencies *(Institut de veille sanitaire, Agence française de sécurité sanitaire des aliments)* or from the field through AFSSA laboratories. The first alerts as well as the following data are recorded in a database. An epidemiological outcome is published monthly. One year after the beginning of this study, the first results are presented in this article which indicates and discuss: the total number of first alerts; the major contaminates; the more frequently contaminated produces; the country where the alerts are more frequently reported.

Epidemiology of parasitism in goat farms in France

E. Etter, C. Chartier, H. Hoste, I. Pors, Y. Lefrileux, C. Broqua, S. Vallade & C. Goudeau

The aim of the study was to describe the characteristics and the parasitological pattern of 27 grazing goat farms in the *Poitou-Charentes*, *Centre* and *Rhônes-Alpes* regions. Furthermore, an approach of consequences of the breeding practices and the specificities of the farms on

this parasitological risk was assessed. Three farm groups have been found: flocks with a low level of parasitism, an average level or a high level, particularly in autumn. Parasitism has a positive association with the stocking rate. This is the illustration of the dilution phenomenon (the bigger the pasture area is, the lower the animals are parasite). Parasitism is negatively related to production. There is also a link between parasitism and *Poitou-Charentes* region, although it may be due to the specific breeding practices of this region (high stocking rate and high production).

Meta-analysis of published estimates of effects of diseases on reproduction in dairy cows: quantification of the effects of retained placenta

Christine Fourichon, H. Seegers, X. Malher & F. Beaudeau

The effect of retained placenta on days to 1st service, conception at 1st service, days to conception and services per conception were assessed by meta-analysis. Twenty-nine papers were selected from the CAB database (1987-1999) and journal contents (1998-2000), excluding studies with data collected prior to 1960 or in non-intensive dairy production regions. Published estimates were heterogeneous. They varied with data recording system, adjustment for other disorders, mean calving to service interval, but not with duration of the retention or average reproduction performance.

Features of densely populated pig areas and sparsely populated pig's areas: consequences on the frequency of influenza-like syndromes in fattening pigs

N. Rose & F. Madec

The features of Densely Populated Pig Areas (DPPA) and Sparsely Populated Pig Areas (SPPA) were described and compared regarding the health status of the farms (number of influenza-like syndromes in fattening pigs per year). Both areas evidenced different typologies: in DPPA, high density was associated with a high proportion of finishing-pigs units leading to a lot of piglet movements in the area. Farrow-to-finish farms located in this area had a lot of contacts with external vehicles that might be interpreted as a cause or consequence of the poor health status of these farms (more than 2 influenza-like syndromes per year). This situation might be deteriorated by the lack of biosecurity measures implemented in these farms. Conversely, the good health situation of the farms located in the SPPA was associated with few external contacts and good biosecurity measures.

EPIDEMIOLOGY PAPER

Epidemiological surveillance network of avian diseases in Senegal

E. Cardinale

A modern poultry production has been developed around Dakar in order to produce animals' proteins rapidly for feeding the non-stop growing urban human population. But the use of exotic unsuited poultry strains to tropical conditions, the fast increase of the poultry houses and the lack of sanitary measures explain the diseases explosion. To fight against that problem, the poultry-specialised veterinarians have contacted the laboratory of pathology to create an information system allowing more effective reaction on the field. Thus, the Senegalese epidemiological surveillance network on poultry pathology has been created in April 1998; it's made up of 35 actors, especially private veterinarians and technicians (practises; societies) who declare each clinical case with a specific information form. These forms are centralised through a management unity who gives the results back with a quarterly

epidemiological bulletin and an annual report. These information gives a real precise following of the pathology in the area in order to react against the outbreaks co-ordinately; they make the identification of new pathology easier; they constitute a good indicator of the effectiveness of the medical prophylactics and they represent a technical basis for the official regulation laws. Finally, the network also helps to find out important research projects for developing poultry production in the tropics.