

## **1992, issue 22 - Abstracts**

### **EPIDEMIOLOGICAL SITUATION DURING 1991**

#### **Aujeszky's disease in France during 1991**

Toma (B), Buffereau (J-P), David (C), Michel (B), Guillotin (J), Martin (D), Salhgardes (F), Rose (R), Lery (L), Leforban (Y), Eloit (M), Picard (M) & Tkaczuk-Moquay (V)

This paper presents the epidemiological situation for Aujeszky's disease in France during 1991, using tables and figures. The tracers used show that the situation for 1990 and 1991 are similar.

#### **The situation of Enzootic bovine leukosis in France during 1991**

Dufour (B)

The results of the actions taken against enzootic bovine leukosis in France during 1991 are presented with the help of tables and figures. The used information lead to the idea that the improving of the situation, observed during these past years is still ling on during 1991.

#### **Rabies in France and in Europe during 1991**

Aubert (M)

The epidemiological situation of rabies in France and in Europe during 1991 is presented from tables, maps and graphs. Some new scientific and technical information's, in the field of epidemiology or control of rabies, are documented.

#### **Brucellosis in France: situation during 1991**

Ganière (J-P)

The annual prevalence rate for herd's and for brucellosis were, during 1991, 0.52 p. cent in cattle, 0.42 p. cent in goats and 2.18 p. cent in sheep. These figures show that the situation for brucellosis keeps on a slight improvement.

#### **The campaign against bovine tuberculosis in France during 1991**

Bénet (J-J)

During 1991, 475,000 cattle herds, i.e. 19.3 millions of cattle, have been tested against tuberculosis. Annual prevalence percentage of infected herds was 0.31 %, the one for point prevalence on December 31st 0.17 and incidence rate was 0.155 %. The rate for infected animals was 3 out of 10,000. The proportion of non-marked animals being seized was 22.8 %. The proportion of whole seizure on all the seizures was 18.6 %. General situation is good in many French departments. Control of health status of cattle introduced in healthy herds must be the main preoccupation of owners. Veterinary Services must therefore be able to monitor quality of this procedure.

### **MEETING ON MAY 1991 21th**

#### **The French Communicable Diseases computer Network: a seven years experiment**

Garnerin (P), Saïdi (Y) & Valleron (A-J)

This paper describes the organisation and the working of the French Communicable Diseases computer Network. The administrative, human and technical aspects are presented. The network links together 500 Sentinel General Practitioners, 100 Departmental Health offices, the National Department of Health and some reference Centres. The discussion deals with the functioning and the evolution of the whole system.

## PAPERS OF EPIDEMIOLOGY

### **Information on Equine Hepatic Encephalosis in France**

Zientara (S), Plateau (E), Trap (D) & Fontaine (J-J)

Starting in May 1992, a lethal disease hit the population of mares of Western France. Clinical signs and laboratory tests confirmed it was due to a hepatic encephalosis syndrome in which the hepatic harm was the first. This paper presents the different investigations undertaken in order to determine the origin of this disease and the survey conducted to approach its epidemiology. The epidemiological data, the result of the microbiological tests and those of toxicological analysis, all lead to the hypothesis of a food or nutritional origin.

### **National survey on ring test performed on pooled milk during screening for bovine brucellosis**

Durand (B), Garin-Bastuji (B), Dufour (B), Moutou (F), Coton (T), Broardelle (M) & Damour (M)

From information from the field describing positive reactions in excess issued from ring tests performed on pooled milk, a retrospective study was undertaken in order to test the value of the results obtained during the screening for bovine brucellosis in dairy herds over the whole French territory and during a 6 month period. The survey led to an important number of false positive reactions. When observed in detail, this number (for a part predictable when looking at the very low prevalence of the disease) is linked for most of it to the positive criteria. When keeping as significant only those positive twice in a row, the performances of the ring test to screen for brucellosis are correct.

### **A method to study the factors acting on bulk milk cell counts**

Chatelin (Y-M) & Lopez (C)

This study, realized in retrospect on old data, had allowed to propose a method of bulk milk cell counts bimonthly profiles analysis which take into account the correlation between controls. A polynomial model is defined whose parameters are derived from the data within each level of studied factors. A quadratic model of evolution is retained and the factors are simultaneously tested conditionally on this model. A "risk group" classification is proposed.

### **Associations between mastitis and milk yield of dairy cows: effect on lactation curve**

Loquet (F), Calavas (D) & Bugnard (F)

The associations between clinical mastitis and milk yield were studied on 1.769 lactations occurring between December 1987 and June 1990 on 1.168 Friesian and *Montbeliarde* cows, as part of a survey about economic losses due to bovine diseases on 26 dairy herds in the south-east of France. Weekly individual milk yield recordings were performed by dairy men with milking counters. 607 cases of clinical mastitis in 452 lactations were notified by the herdsmen and the veterinary staff and details of their diagnosis and treatments were recorded in the survey database. Monthly individual somatic cell counts were performed by the "Control Laitier". A mathematical model was fitted to the weekly recorded milk yield for each of the 1.769 lactations, milk yield was previously corrected by seasonal effects. The yield depressions were described by the residuals of the lactation curve fit, derived for 8 weeks before the week of diagnosis, for the week of diagnosis and for 8 weeks after. These depressions occurred for at least 2 weeks before diagnosis and spread over 6 weeks. A morphological analysis of the somatic cell count showed that the average reduction in milk yield covers important disparities. These are associations between the evolution of somatic cell counts during the 17 weeks of sampling before and after clinical signs and the level of yield milk depression. This study indicates the decrease in milk yield varies significantly with the nature of intra-mammary microbial infection indirectly tested by cell counting.