



ANSES and equine health

Horses have been of symbolic importance since early animal health research, and equine health remains to this day of prime importance in ANSES activities.

Research and reference

Equine health research and reference activities are mainly based in two laboratories: the Dozulé Laboratory for Equine Diseases and the Maisons-Alfort Laboratory for Animal Health.

The Dozulé Laboratory for Equine Diseases concentrates its activities on controlling health risks related to infectious or parasitic diseases in horses through three key focuses:

- Epidemiology and epidemiological surveillance of these diseases;
- Improving diagnostic and test tools;
- Investigating host-pathogen interactions.

It is divided into three research units:

- Bacteriology and parasitology, with a particular emphasis on contagious equine metritis, dourine and research into antimicrobial peptides as an alternative to antimicrobial therapy for controlling the main pathogenic bacteria affecting horses;
- Epidemiology and pathological anatomy, especially the qualitative and quantitative monitoring of equine mortality and the emergence of resistance to anthelmintics and antimicrobials;
- Virology, investigating equine viral arteritis, equine infectious anaemia, herpesviruses and equine influenza. The unit is exploring in particular interactions between these viruses and their horse hosts.





The Maisons-Alfort Laboratory for Animal Health seeks to shed light on epidemic or epizootic outbreaks, describing the processes behind them and developing new means of identifying pathogens so as to propose, analyse and compare possible control strategies. More generally, it focuses on major epizootic risks, zoonoses and emerging vector-borne diseases.

Two research units are involved in projects relating to the equine sector:

- bacteriology, whose activities mainly concern equine glanders and improving detection methods;
- virology, which explores the West Nile virus, other forms of exotic viral equine encephalitis and the virus causing vesicular stomatitis. Research focuses on the interactions between these viruses and horses.

Reference

ANSES has been appointed the **European Union Reference Laboratory (EURL) for equine diseases**.

- The Dozulé Laboratory for Equine Diseases is the National Reference Laboratory (NRL) and EURL for contagious equine metritis, dourine, equine viral arteritis, herpesviruses and equine infectious anaemia. It provides scientific and technical support for veterinary inspections carried out by the authorities;
- The Maisons-Alfort Laboratory for Animal Health is the National Reference Laboratory (NRL) and EURL for the West Nile virus and more generally viral equine encephalitis, vesicular stomatitis, glanders and melioidosis.

Other ANSES entities are also involved in horse health. The Lyon Laboratory, for example, takes part in the Resapath epidemiological surveillance network for antimicrobial resistance in pathogenic bacteria of animal origin, while ANMV—the French Agency for Veterinary Medicinal Products—is the national authority competent to assess and manage risk in the area of veterinary medicinal products.

Assessing health risks

The Risk Assessment Department covers health risks. Experts appointed by ANSES form Expert Committees able to reply to solicited requests relating to the horse industry. The Agency has in particular investigated:

- surveillance of the West Nile virus;
- equine viral arteritis;
- equine encephalitis;
- equine glanders;
- horse breeding (insemination, sperm collection, centres with stallions at stud etc.);
- diseases affecting horses with a view to establishing a hierarchy (diseases occurring in France, exotic pathogens and diseases found in French overseas departments and territories);
- a health protocol for horses returning to France from abroad;
- potential health risks for the French horse industry arising from France hosting the World Equestrian Games in 2014.

ANSES employees also take part in working groups for the World Organisation for Animal Health (OIE). There they address various issues concerning equidae, such as how to manage the international movements of competition horses.

Partnerships

To stay tuned to the expectations of the horse industry, ANSES has built up partnerships with various key players, such as the Hippolia foundation for scientific cooperation, the Hippolia competitiveness cluster, the RESPE epidemiological surveillance network, the Horse Council of Basse-Normandie and IFCE, the French horse and riding institute.

ANSES also benefits from financial or scientific partnerships with various organisations, including the Regional Council of Basse-Normandie, the University of Caen Basse-Normandie, LABEO Frank Duncombe, the Institut Pasteur, INRA (the French institute for agricultural research), the national veterinary schools and the European network of national reference laboratories.



Training

The Dozulé Laboratory for Equine Diseases offers training on diagnostic techniques for the diseases covered by its national and European reference mandates in addition to equine autopsies.

It takes part in IFCE (French horse and riding institute) training days and professional symposia and supervises students from universities, veterinary or engineering schools.

The Maisons-Alfort Laboratory for Animal Health leads training courses on the methods used to detect and characterise infectious agents affecting horses.



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