

CURRENT STATUS AND FUTURE PROSPECTS OF THE FRENCH AGENCY FOR FOOD, ENVIRONMENTAL AND OCCUPATIONAL HEALTH & SAFETY (ANSES) IN TERMS OF NATIONAL REFERENCE MANDATE FOR TRACE METALS DETERMINATION IN FOODSTUFF

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The French Agency for Food, Environmental and Occupational Health & Safety (Anses) is the leading national food safety agency in Europe with regards to the scope of its missions. The agency provides state authorities with the technical & scientific assistance they require to draft new regulations and standards at national, European and international level, develop new test methods and carry out market surveillance.

The Agency has a network of 11 reference and research laboratories distributed throughout France. Anses also leads and coordinates a network of 31 scientific organizations, including health agencies, institutes and research laboratories. Anses laboratories hold 65 national reference mandates and 26 European and international reference mandates. These mandates acknowledge the agency to develop new methods of diagnosis and analysis and also to validate and transfer them to the network laboratories to ensure that health inspections throughout France and Europe are performed under controlled and uniform conditions. One particular mission of Anses is also the direct involvement in the national surveillance/control plans (PS/PC) issued by the French Directorate General for food of the Ministry of Agriculture, Agro-Food and Forestry. These PS/PC are exploratory actions necessary to foresee the contamination of foodstuff largely consumed by the general population hence allowing the state authorities to take preventive or curative actions if necessary.

Anses' department of food chemical contaminants hosts the national reference laboratory (NRL) for trace metals in food of animal origin (LNR-TMFAO) accredited according to ISO/IEC 17025 standard. The main mission of the LNR-TMFAO is providing scientific and technical support to health inspection departments in terms of methods validation, training and method transfer to field/routine laboratories. In this respect, LNR-TMFAO organizes proficiency testing schemes for the network of routine laboratories in order to assess their capability to carry out official measurements of trace metals in foodstuff of animal origin.

This work addresses the current status of Anses in terms of activity of the national reference laboratory of trace metals determination in foodstuff. In this respect, the current available reference methods for trace metals determination and their validation protocol by using the accuracy profile approach will be presented. In addition, the organization, sample preparation and data statistical treatment employed for the proficiency-testing schemes organized by LNR-TMFAO will be discussed. The main/preliminary results of the latest PS/PC (2016, 2017) in terms of trace metals in various foodstuffs will also be addressed. Finally, the future research and national reference-related projects of LNR-TMFAO will also be presented.

Keywords: Anses; national reference laboratory; trace metals in food; surveillance plans; proficiency-testing schemes