CONffIDENCE: Contaminants in food and feed: Inexpensive detection for control of exposure

CONffIDENCE

Safer food through rapid and cost-efficient tests for chemical contaminants in the food chain

Introduction

The CONffIDENCE project (Contaminants in Food and Feed; Inexpensive Detection for Control of Exposure) aims to further improve food safety in Europe by the development of fast and cost-efficient methods for the detection of a wide range of chemical contaminants in different food and feed commodities.

16 partners from 10 countries, representing universities, research institutes, industry and SME's, work together to achieve these goals. The project is funded by the European Commission in the 7th Framework Programme, call identifier FP7-KBBE-2007-1, Grant Agreement number 211326, and runs from May 2008 until May 2012.

Objectives

The project will deliver both scientific-technical solutions for the monitoring and enforcement of food safety as well as information and training of the developed methods. The major objectives of the project are:

- To develop and validate new, simplified, inexpensive detection methods for chemical contaminants from farm to fork.
- To Improve exposure assessment through monitoring of selected contaminants.
- To contribute to validation of predictive hazard behaviour models.
- To disseminate and provide training of new detection methods to all relevant stakeholders, to advance technology exploitation.

Participants

- RIKILT Institute of Food Safety, Wageningen UR, NL
- Institute of Chemical Technology, Prague, CZ
- National Council of Scientific Research, Madrid, SP
- Chemisches und Veterinäruntersuchungsamt, Stuttgart, DE
- EC Joint Research Centre, Institute for Reference Materials and Measurements, Geel, BE
- The Food and Environment Research Agency, York, UK
- Technical University of Denmark, Soborg, DK
- Queen's University Belfast, Belfast, UK
- National Research Council, Institute of Sciences of Food Production, Bari, IT
- Walloon Agricultural Research Centre, Gembloux, BE
- Tampere University of Technology, Tampere, FI
- NUTRECO Holding N.V., Boxmeer, NL
- NESTLE, Lausanne, CH
- University of Santiago de Compostela, Lugo, SP
- Centre d'Economie Rurale, Marloie, BE
- UNISENSOR, Liège, BE

Technologies

The following novel multi-detection (multiplex) technologies are utilized for fast, easy and reliable detection of food contaminants.
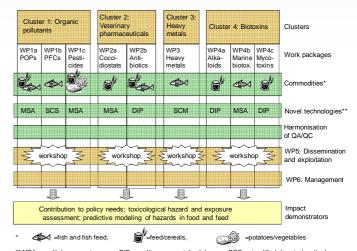
- Multiplex dipsticks
- Flow cytometry with functionalized beads
- Optical and electrochemical biosensors
- Near Infrared (NIR) imaging methods
- Simplified Mass Spectrometric (MS) methods
- Automated contaminant profiling in MS data

Targeted contaminants

The CONffIDENCE project is organized into nine RTD work packages focusing on targeted contaminants, grouped into four R&D clusters. For each contaminant group a separate flyer is available with the latest results.

- Cluster 1: Organic pollutants
- Cluster 2: Veterinary pharmaceuticals
- Cluster 3: Heavy metals
- Cluster 4: Biotoxins

In addition cross-cutting discussion groups and work packages on dissemination and management provide coherence in the project.

* ⟨fish⟩ =fish and fish feed, ⟨feed⟩ =feed/cereals, ⟨potatoes⟩ =potatoes/vegetables

** MSA = multiplex screening assay; DIP = multi component dipstick assay, SCS = simplified chemical method

Contact

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