

Food Fraud and Authenticity services



RISK ASSESSMENT



CONSULTING



TESTING

Food Fraud is the deliberate production and/or commercialization of non-compliant food for financial gain. Food frauds cause economic damage and can pose a risk to consumer health.

Recently, food industry has experienced several examples of food frauds, like the horsemeat scandal in 2013, several fish frauds denounced by Oceana in 2012-2014, or false geographic origins. Some food frauds also had very dramatic effects like the addition of melamine in milk and the carcinogenic dye Sudan Red in paprika.

Food fraud strictly depends on the product itself and constantly evolves along with the socio-economic background. The market globalization and the increasing complexity of production chains have complicated the scenario, thus **demanding experienced and cutting-edge professionals to prevent and manage the phenomenon.**

The **most appropriate analytical approach** to manage food frauds strictly **depends on the fraud itself:**

- **TARGETED ANALYSIS:** determination of **known** molecules associated with food adulteration. **Targeted analyses** for food frauds are very useful when you know which adulteration you are looking into
- **SCREENING NON-TARGETED:** determination of the **overall profile/fingerprinting of the sample** This screening identifies **all the molecules/adulterants** in a sample, both **known** and **unknown**, to build **ad hoc authenticity databases** where no reference exists. This approach is very useful **in case of very complex frauds**, such as those related to **geographic origin, species varieties, biodiversity**, etc.

The services by Mérieux NutriSciences

Mérieux NutriSciences is a reliable partner for food companies throughout the whole food chain -providing full analytical and consulting services by dedicated experts- to support and assist food companies in the prevention and reduction of food fraud.

- **RISK ASSESSMENT:** *identification of the possible risk of food fraud along the whole food chain (raw materials, ingredients, products, packaging, etc.) and monitoring of risk products*
- **CONSULTING:** *definition of the analytical control plan to minimize the risk of food frauds: monitoring strategy, testing strategy, origin verification, anti-counterfeiting technologies, supplier audits, etc.*
- **TESTING:** *standard and customized analytical solutions for specific food fraud and authenticity issues with targeted as well as non-targeted analyses*

Mérieux NutriSciences offers targeted and non-targeted authenticity tests in a wide range of food products.

TARGETED ANALYSES

- Identification of fish species: cod, sole, halibut, catfish, tilapia, etc.
- Identification of meat species: beef, pork, chicken, turkey, horse, goat, donkey, etc.
- Freshness of fish
- Authenticity of coffee: Arabica vs. Robusta
- Authenticity of chocolate composition
- Counterfeiting of spices
- Adulteration of fruit juices
- Aging of Grana Padano Cheese
- Crust % in grated parmesan
- Milk quality
- Adulteration of A2 milk
- Common wheat in durum wheat pasta
- Flour of inferior quality
- Counterfeiting of organic products
- Artificially colored products
- Etc.

NON-TARGETED SCREENING

- Authenticity of Parmigiano Reggiano
- Origin of extra virgin olive oil
- Origin of tomato products
- Whole genome sequencing
- DNA barcoding
- Etc.



For more information, please contact our experts by phone at

+39 0423 7177 or by e-mail at food.italy@mxns.com

FL1117_0_EN / Photos: Shutterstock. Printed in Italy



Via Fratta 25, 31023 Resana (TV), Italy
tel. +39 0423 7177
e-mail: food.italy@mxns.com

Copyright © 2017 Mérieux Nutrisciences Corp
All Rights Reserved

www.merieuxnutrisciences.eu