Ensuring the Integrity of the European food chain

FoodIntegrity Knowledge Base: an information resource on food authenticity

Michèle Lees
Eurofins Analytics France
Today’s context

There is a need for a Knowledge Base on food authenticity issues:

To support industry’s efforts to combat food fraud

2016 – GFSI* Guidance Document (V7) will include key elements to address Food Fraud:

- Food Fraud Vulnerability Assessment
- Food Fraud Vulnerability Control Plan

- Cascade to food safety management schemes via benchmarking process
- Incorporation in company’s food safety management system

*Global Food Safety Initiative
Today’s context

There is a need for a Knowledge Base on food authenticity issues:

To help enforcement bodies target food fraud

- Pressure from consumers in Europe and worldwide following recent food fraud incidents
- Requirement for increased controls on food imports and exports
Today's context

There is a need for a Knowledge Base on food authenticity issues:

To promote European Research and Development in food authenticity and traceability
The FoodIntegrity Knowledge Base

Our aim is to bring together available information on

✓ food authenticity issues and related food commodities
✓ suitable analytical tools
✓ associated reference data

in a Web-based “Knowledge Base”

And to facilitate access to this information for industry, regulatory authorities and research organisations.
Mapping of analytical methods for the detection of fraud and/or verification of integrity onto specific commodities or food authenticity issues

Is it organic?
PDO, PGI?
Adulterated?
Diluted?
Enhanced?
Counterfeit?

Food Commodity or Ingredient

Fraud/Authenticity Issue

Analytical Method

Analytical Reference data

Inventory of authentic reference data sets

Inventory of existing analytical tools
The FoodIntegrity Knowledge Base

Type of information

Food integrity issues
• Type, frequency, food product involved – including issues related to EU quality labels (PDO, PGI, TSG)

Analytical methods
• Official, published, in-house

Analytical data
• Type, format (raw, pre-processed), metadata
• Single parameters, ranges of analytical parameters for authentic products, genetic sequences, spectral data

Provide links to existing databases

Establish guidelines for consistent reporting of future data
The FoodIntegrity Knowledge Base

A body of experts to input and validate the data:
WP 2 – Knowledge Base
Data entry screen

**FOOD COMMODITY**

- **Food Category**: Honey and royal jelly
- **Commodity Detail**: Royal jelly

**FOOD INTEGRITY ISSUE**

- **Description**: Royal jelly produced from non-authentic saccharide sources

- **Type of fraud**
  - Dilution
  - Substitution
  - Concealment
  - Mislabelling
  - Unapproved enhancement
  - Grey market
  - Counterfeiting
  - Other

- **Issue**
  - Product composition
  - Geographical origin
  - Botanical/Cultivar/Varietal/Species
  - Production system/process
  - Product quality
  - Other issue

**IMPORTANCE**

- **Incidence**:
  - very often
  - often
  - rare
  - no longer encountered

- **Location in supply chain**:
  - Agricultural producer
  - Storage/transport
  - Food manufacturer
  - Trader
  - Distributer
  - Wholesaler
  - Retailer
  - Unknown

You can select more than one

Then add incidence and level

Now select Next screen
Then describe the issue in more detail

FOOD COMMODITY

Food Category
Select from drop-down list
Honey and royal jelly

Commodity Detail
Enter as free text – e.g. butter
Royal jelly

FOOD INTEGRITY ISSUE

Description
Add as free text to describe the issue
Royal jelly produced from non-authentic saccharide sources

Type of fraud
Select one
Dilution
Substitution
Concealment
Mislabelling
Unapproved enhancement
Grey market
Counterfeiting
Other

Issue
Select one or more
Product composition
Geographical origin
Botanical/Cultivar/Varietal/Species
Production system/process
Product quality
Other issue

Importance
Incidence:
very often
often
rare
no longer encountered

Location in supply chain:
Agricultural producer
Storage/transport
Food manufacturer
Trader
Distributor
Wholesaler
Retailer
Unknown

Then define the issue, square boxes allow multiple selections

Next screen
WP 2 – Knowledge Base
Data entry screen

**FOOD COMMODITY**

- **Food Category**
  - Select from drop-down list

- **Commodity Detail**
  - Enter as free text – e.g. butter

**FOOD INTEGRITY ISSUE**

- **Description**
  - Add as free text to describe the issue

- **Issue**
  - Select one or more
    - Dilution, substitution
    - Concealment
    - Unapproved enhancement
    - Mislabelling
    - Grey market, counterfeiting
    - Product composition
    - Geographical origin
    - Botanical/Cultivar/Varietal origin
    - Production system
    - Product processing
    - Product quality
    - Other issue

- **Importance**
  - Incidence:
    - very often
    - often
    - rare
    - no longer encountered

- **Level**
  - consumer
  - producer
  - both

Next screen
WP 2 – Knowledge Base
Data entry screen

FOOD COMMODITY

Food Category
Select from drop-down list
(Select commodity)

Commodity Detail
Enter as free text – e.g. butter
CN code

FOOD INTEGRITY ISSUE

Description
Add as free text to describe the issue

Type of fraud
Select one

Dilution
Substitution
Concealment
Mislabelling
Unapproved enhancement
Grey market
Counterfeiting

Issue
Select one or more

Product composition
Geographical origin
Botanical/Cultivar/Varietal/Species
Production system/process
Product quality
Other issue

Importance
Incidence:
very often
often
rare
no longer encountered

Location in supply chain:
Agricultural producer
Storage/transport
Food manufacturer
Trader
Distributor
Wholesaler
Retailer
Unknown

Click on the down arrow to select from list

Next screen
The FoodIntegrity Knowledge Base

- Work in progress
- The database structure is now ready for inputting the data
- First version available end 2015
- Demonstration is available
Thank you for your attention!

www.foodintegrity.eu

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