Atelier sur la protection et le respect des indications géographiques

Vendredi 27 Novembre 2020

DG CCRF

DOUANES & DROITS INDIRECTS

Presentation of SCL

Service Commun des Laboratoires

« A Joint Laboratory Service »

Sophie ROSSET – SCL in Bordeaux

A common service of laboratories for the economic and financial ministries

DOUANES & DROITS INDIRECTS and DG CCRF

SCL

DG CCRF

DOUANES & DROITS INDIRECTS

11 laboratories in metropolitan France and overseas

+ a management unit in Paris

SCL's missions

4 missions

1- ANALYZE : Answer to requests for analysis and expertise from the two General Directorates (DGCCRF-DGDDI)

2- SUPPORT : Provide technical advice and support

3- DEVELOP : Adapt and develop analytical methods

4- COOPERATE : Contribute to the process of scientific cooperation

The SCL activities are linked to the missions of the DGDDI and of the DGCCRF :

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- **Tax and statistical aspects**
  Tariff classification, tax classification of alcohols, wines, petroleum products, denatured alcohols,..
- **Safety**
  Toys, narcotics, jewellery, ...
- **CITES (Convention of Washington)**
  Fauna and flora
- **European Common Agriculture Policy**
  Composition and refunds
- **Consumer Safety**
  Food and feed safety / Compliance of goods with national and EU safety regulation and standards
- **Food quality / detection of frauds & adulteration**
  - *Compliance with labelling*
  - *Compliance with food legislation*
  - *Authenticity*
- **Crisis management**
  Outbreaks (E. coli, norovirus, …), horse meat scandal, fipronil crisis, …

↳ Large range of checking and controls :

↳ Food, feed and goods imported and/or sold on the French market.

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SCL : facts and figures

60 000 samples received and over 450 000 results of analysis performed every year

A high-tech network : national expertise centres and reference laboratories specialized in the investigation and detection of chemical and biological contaminants, product compliance, product authenticity, pesticide residues, narcotics, jewelry, seafood, wines and spirits, textiles, etc …

There are 13 National Reference Laboratories according to European regulation n° 2017/625

Expert scientific staff : about 380 scientists and highly-qualified staff specialized in physics, chemistry, biochemistry, microbiology, etc…

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29 fields of expertise – Each laboratory is specialized in different kinds of matrices

	Domaine	13	33	34	35	59	67	69	75	76	971	974
D01	Microbiologie		✓	✓	✓			✓	✓			
D02	Techniques moléculaires d'identification		✓	✓	✓	✓	✓	✓				
D03	Contaminants alimentaires	✓	✓		✓	✓	✓		✓			
D04	Résidus de pesticides			✓					✓			
D05	Mycotoxines				✓							
D06	Isotopie		✓	✓								
D07	Boissons		✓	✓								
D08	Végétaux : fruits, légumes, céréales, champignons, café, thé, semences, plants, toxines des plantes		✓	✓		✓	✓					
D09	Produits sucrés, chocolats, produits de la ruche	✓	✓									
D10	Épices, arômes, huiles essentielles	✓										
D11	Corps gras	✓										
D12	Produits alimentaires, laitiers, ovoproduits								✓			
D13	Produits carnés			✓								
D14	Produits de la mer	✓										
D15	Composition nutritionnelle				✓		✓					
D16	Matériaux au contact des denrées alimentaires		✓									
D17	Stupéfiants, médicaments, dopants, tabacs	✓				✓	✓		✓			
D18	Phytosanitaires, fertilisants, supports de culture							✓				
D19	Énergie, environnement							✓		✓		
D20	Produits chimiques, biocides, alcools dénaturés		✓					✓				
D21	Cosmétiques							✓				
D22	Textiles, cuirs, papiers, plastiques							✓				
D23	Métaux, bijoux, pierres, bois, céramique								✓			
D24	Biens de consommation							✓				
D25	Jouets	✓				✓						
D26	Classement "mécanique", électronique, biens double usage								✓			
D27	Classement tarifaire de proximité	✓								✓		
D28	Analyses variées										✓	✓
D29	Métrologie	✓										

SCL Laboratories are accreditated (ISO 17025) (some of them since 1991).

French accreditation body is COFRAC (COmité FRançais d'ACcréditation).

Since 2019 accreditation according to ISO/IEC 17025:2017

Accréditation
N° 1-0512
Portée
disponible sur
www.cofrac.fr

cofrac
ESSAIS

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SCL laboratory in Bordeaux

The laboratory is located within the university campus

45 people (microbiologists, chemists and other functions)

9 fields of expertise

Contaminants analysis (1/2)

2 NRL :

Food contact materials

* BPA
* Endocrine disruptors
* Mineral oils

Metallic trace elements in vegetal and mineral food

* Compliance with R(UE) 1881/2006
* National food control programmes
* Composition (major and minor minerals)
* Speciation

Contaminants analysis (2/2)

Nanomaterials and nanoparticles

* Labelling / R(UE) 1169/2011
* spICP-MS : "routine" analysis of titanium dioxide (E171)
* Work in progress on other additives (eg E172)

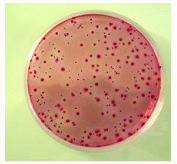
Radioactivity measurement

* National food control programme
* Authenticity of products (wines, mushrooms, …)

Food products analysis (1/2)

Microbiology :

* Compliance with EU regulation (food safety, process hygiene criteria)
* Foodborne parasites detection



Molecular biology :

* Plant cultivars authentication (shallots, …)

Sweet products : jams, macaroons, candies, …

* Composition
* Labelling
* Additives : preservatives, dyes,
* Nutritional analysis

Food products analysis (2/2)

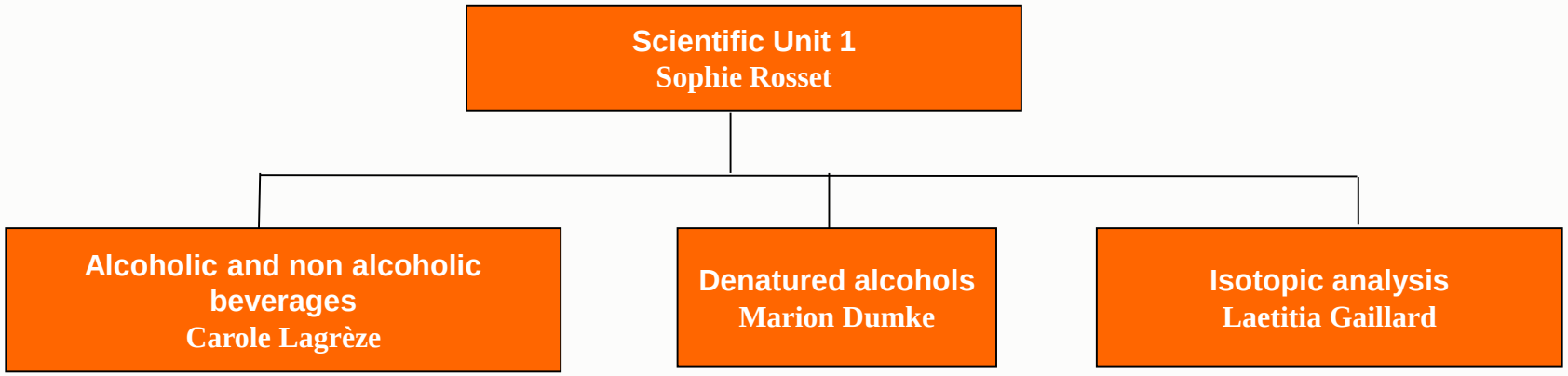
Processed fruits and vegetables

Dried fruits : figs, dates, grapes, apricots, prunes, walnuts, hazelnuts, …

* Moisture content (oven under vaccum)
* Quality requirements
* Preservatives contents
* Control of sulfites E220-E228 (RCE 669/2009)

Organisation of the Scientific unit 1

There are 14 analysts (engineers and technicians)



Beverages (1/2)

Alcoholic and non alcoholic products :

- wines, ciders, beers
- spirits
- soft drinks
- any kind of beverage

* Excise tax classification
* Tariff classification
* Labelling issues / Check regulatory compliance (allergens, additives, composition, nutritional analysis, …)

Beverages (2/2)

Oenological products

* Compliance with International Oenological Codex

Sensory analysis on wines

* Selection and training of a tasting panel
* Evaluation of olfactive and/or taste alteration in wine character
* Accreditation
* Active cooperation between SCL33 and OIV to edit a Review document (March 2015)

Isotopic analysis (1/4)

A dedicated team to isotopic analysis

\+ 2 * 400 Hz NMR devices

* Proton probe ⟶ Screening / ^{1}H analysis

* Deuterium probe ⟶ Isotopic ratio of deuterium

Isotopic analysis (2/4)

+ 2 * IRMS and 4 preparation modules

- Elemental Analyser – liquid injection (C13)
- Elemental Analyser – solid injection (global C13 + N15)

} EA-IRMS

- Automated system for headspace sampling = Multiflow-IRMS (O18 + C13 of CO_2)
- Liquiface – HPLC = HPLC-co-IRMS (multicomponent C13)

Isotopic analysis (3/4)

Main issues :

* Annual european data base for wine control
* Others data base
* Food authenticity
* Active cooperation within SCL33 and with others SCL
* Active cooperation with university in Bordeaux and foreign research teams

Isotopic analysis (4/4)

Food authenticity : a major issue

* **Wines** : detection of watering and chaptalisation, vintage and geographical origin
* **Spirits** : origin of alcohol, detection of glycerol
* **Apples, mushrooms, garlic, melon** : geographical origin
* **Prunes** : geographical origin and difference between dried prunes and rehydrated prunes
* **Honey** : botanical and geographical origin
* **Sparkling beverages** : natural or exogenous origin of CO_2
* **Sugars** : botanical origin (C4 or C3)
* **Fruit juices** : water addition, sugar addition, compliance with regulation (addition of citric acid)
* **Cystein, vitamin C, tartaric acid** : origin


Thank you for
your attention