



An Update on Sustainable Valorization of Coffee By- Products as Novel Foods within the European Union. Dr. Dirk W. Lachenmeier



Baden-Württemberg

15.10.2021

Foods 2021 –
Live Session - "Coffee By-products as Sustainable Novel Foods"

What are „Novel Foods“ in the EU

- Foods and/or food ingredients, which are:

- Relatively new (>1997) on the European market
- Exotic origin or unusual composition
- Produced by new or innovative technologies
- Products without history as safe food for human consumption



- Before placing on the market, these products need:

- an approval with safety assessment

- In Germany: criminal offence to intentionally place non-approved novel foods on the market

Legal background



Regulation (EU) 2015/2283

- ❑ In force since 31.12.2015
- ❑ Legally binding since 01.01.2018
- ❑ Several new implementing regulations

11.12.2015

EN

Official Journal of the European Union

L 327/1

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(Legislative acts)

REGULATIONS

REGULATION (EU) 2015/2283 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2015

on novel foods, amending Regulation (EU) No 1169/2011 of the European Parliament and of the Council and repealing Regulation (EC) No 258/97 of the European Parliament and of the Council and Commission Regulation (EC) No 1852/2001

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 114 thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee ⁽¹⁾,

Acting in accordance with the ordinary legislative procedure ⁽²⁾,



Legal background

Regulation (EU) 2015/2283

- Definition - Article 3 Abs. 2 a)

‘Novel Food’

means any food that was not used for human consumption to a significant degree within the Union before **15 May 1997**, irrespective of the dates of accession of Member States to the Union

Note: Industry is responsible for checking novel food status before placing products on the market!

Determination of NF-Status

Novel Food-Catalogue of EU Commission

- Harmonized (EU Commission and member states) information about the **NF Status** of many foods
- Non-exhaustive list
- Orientation on whether a product will need an authorisation under the NF Regulation.
- Constant updates based on new knowledge
- EU countries may restrict the marketing of a product through specific legislation.

Coffea sp.

Common Names

DE: Kaffee (Pflanze), FR: Caféier, EN: Coffee, FI: Kahvi, NL: Koffie (boom), GR: Kafea, IS: Kaffi, IT: Caffè, PT: Caféiro, cafézeiro, DK, NO, SE: Kaffe, PL: Kawa, ES: Café, Cafeto, BG: Kafe

Common Names

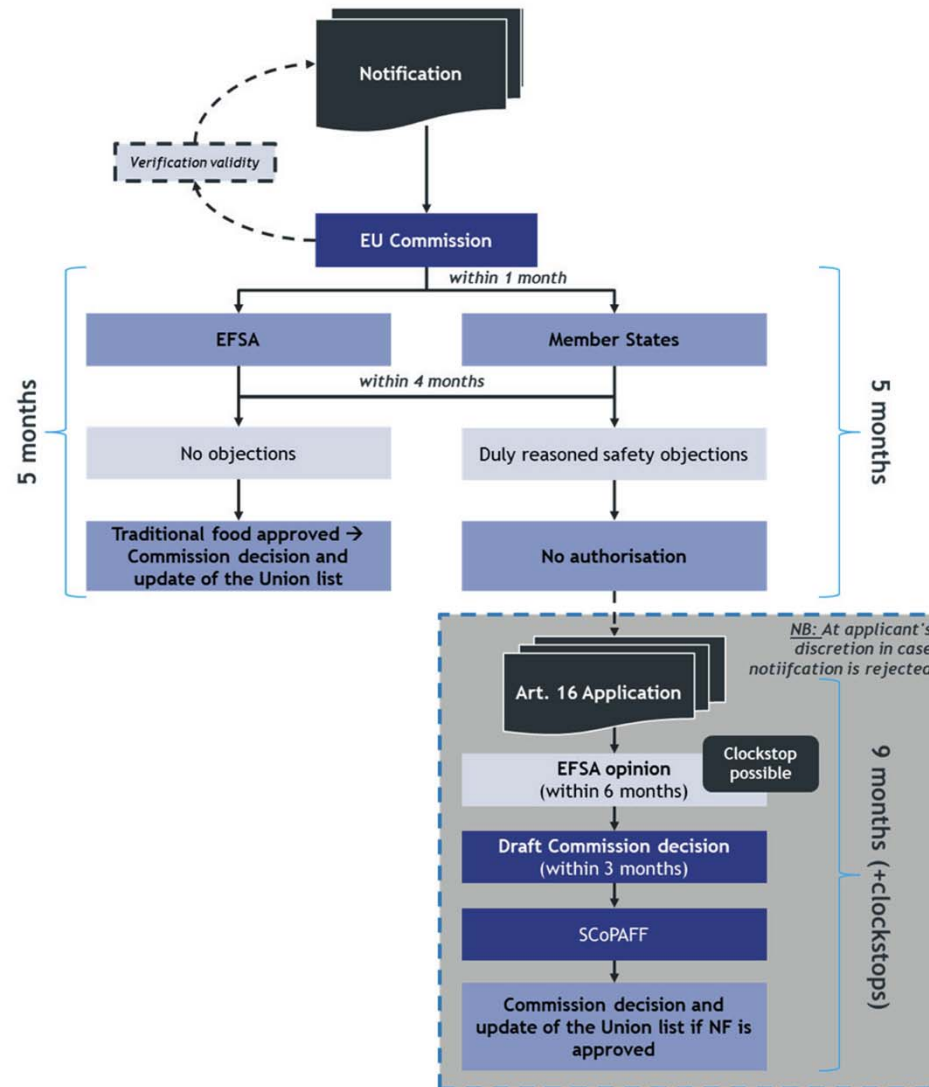
The request concerns the green unroasted coffee beans and "white coffee" made of them by a non selective water extraction. Coffee is a brewed beverage with a dark, acidic flavor prepared from the roasted seeds of the coffee plant, colloquially called coffee beans. Coffee berries, which contain the coffee seeds or "beans", are produced by several species of small evergreen bush of the genus *Coffea*. The two most commonly grown are the highly regarded *Coffea arabica*, and the 'robusta' form of the hardier *Coffea canephora* (synon. *Coffea robusta*). The use of dried berries of *Coffea* sp in tea (Coffee cherry tea) is novel. Coffee cherry tea is an herbal tea made from the dried berries (or "cherries") of the coffee plant. It is also known as cascara, from the Spanish cáscara, meaning "husk".

Status



[What does it mean?](#)

Notification of a traditional food from a third country (and where, applicable, authorisation procedure)



Coffee leaves



Baden-Württemberg

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Technical Report on the notification of infusion from coffee leaves (*Coffea arabica* L. and/or *Coffea canephora* Pierre ex A. Froehner) as a traditional food from a third country pursuant to Article 14 of Regulation (EU) 2015/2283

European Food Safety Authority (EFSA)

Abstract

Following a notification from AM Breweries (Denmark) submitted to the European Commission under Article 14 of Regulation (EU) 2015/2283 to place on the market an infusion from coffee leaves (*Coffea arabica* L. and/or *Coffea canephora* Pierre ex A. Froehner) as a traditional food from a third country (TF), and in line with Article 15(2) of that Regulation, EFSA was asked by the European Commission whether there are duly reasoned safety objections to the placing on the market of the TF within the European Union (EU). The approach of EFSA for the evaluation of TF notifications is based on the EFSA guidance for stakeholders on notifications for authorisation of TF and on the principles described in the relevant existing guidance documents from the EFSA Scientific Committee. EFSA considers that the available data on composition and history of use of the TF do not raise safety concerns. Considering the available data, EFSA does not raise safety objections to the placing on the market of the requested TF [i.e. infusion from coffee leaves (*Coffea arabica* L. and/or *Coffea canephora* Pierre ex A. Froehner)] within the EU.

COMMISSION IMPLEMENTING REGULATION (EU) 2020/917**of 1 July 2020**

authorising the placing on the market of infusion from coffee leaves of *Coffea arabica* L. and/or *Coffea canephora* Pierre ex A. Froehner as a traditional food from a third country under Regulation (EU) 2015/2283 of the European Parliament and of the Council and amending Implementing Regulation (EU) 2017/2470

(Text with EEA relevance)

ANNEX

The Annex to Implementing Regulation (EU) 2017/2470 is amended as follows:

(1) The following entry is inserted in Table 1 (Authorised novel foods) in alphabetical order:

Authorised novel food	Conditions under which the novel food may be used		Additional specific labelling requirements	Other requirements
"Infusion from coffee leaves of <i>Coffea arabica</i> L. and/or <i>Coffea canephora</i> Pierre ex A. Froehner (Traditional food from a third country)	<i>Specified food category</i>	<i>Maximum levels</i>	The designation of the novel food on the labelling of the foodstuffs containing it shall be 'Infusion from coffee leaves of <i>Coffea arabica</i> and/or <i>Coffea canephora</i> '."	
	<u>Herbal infusions</u>			

(2) The following entry is inserted in Table 2 (Specifications) in alphabetical order:

Authorised Novel Food	Specifications
"Infusion from coffee leaves of <i>Coffea arabica</i> L. and/or <i>Coffea canephora</i> Pierre ex A. Froehner (Traditional food from a third country)	<p>Description/Definition: The traditional food consists of an infusion of leaves from <i>Coffea arabica</i> L. and/or <i>Coffea canephora</i> Pierre ex A.Froehner (family: Rubiaceae). The traditional food is prepared by mixing a maximum of 20 g of dried leaves from <i>Coffea arabica</i> L. and/or <i>Coffea canephora</i> Pierre ex A.Froehner with 1 L of hot water. Leaves are removed and the infusion is then subjected to <u>pasteurization</u> (at least 71 °C for 15 seconds).</p> <p>Composition: Visual: Brown green liquid Odour and taste: Characteristic Chlorogenic acid (5-CQA): <u>< 100 mg/L</u> Caffeine: < 80 mg/L Epigallocatechin gallate (EGCG): <u>< 700 mg/L</u></p> <p>Microbiological criteria: Total plate count: < 500 CFU/g Total yeast and mould count: < 100 CFU/g Total coliforms: < 100 CFU/g <i>Escherichia coli</i>: Absence in 1 g <i>Salmonella</i>: Absence in 25 g</p> <p>Heavy metals: Lead (Pb): < 3,0 mg/L Arsenic (As): < 2,0 mg/L Cadmium (Cd): < 1,0 mg/L CFU: Colony Forming Units"</p>

<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0917&from=DE>

Summary coffee by-products novel food status

By-product	Main uses	Novel Food Status
Flowers (blossoms)	Beverages (tea): “coffee blossom tea”	Novel . Anecdotal evidence as a traditional food from third country. Needs approval procedure.
Leaves	Beverages (tea): “coffee leave tea”	Approved as traditional food from third country (herbal infusion).
Coffee cherry materials (husks, cascara, dried or fresh coffee cherries, mucilage or pulp)	Beverages (tea), spirits, qishr (mixture with spices)	Novel , two notifications submitted as traditional food from third country as well as one full application for further uses. EFSA opinions were positive for the notifications. EC implementing regulation is expected in 2021 .
Green unroasted beans and infusion made of them (non selective water extraction)	Dietary supplement, beverages (tea): “white coffee”	Not novel (see NF catalogue). Selective extracts could be novel.
Silver skin	Dietary fibre supplementation, vegan smoke flavourings, beverages (tea)	Unclear but indirect consumption before 1997. Consultation suggested.
Coffee grounds	Historical: adulteration of coffee; Flour for savoury and sweet recipes, bakery products, dietary fibre source, confectionary, snacks and ready-to-eat products	Not Novel (spent coffee grounds, defatted spent coffee grounds and defatted unused coffee grounds)
Parchment	Food preservative, antioxidant	Novel , currently not approved. No application pending . Needs approval procedure.

Next Steps

- ❑ The industry effort to approve coffee by-products is very incoordinated and potentially misaligned
- ❑ Suggestion for coffee by-product consortium to coordinate efforts
- ❑ Traditional uses in third countries should be further explored (e.g. indications of cherry spirit in Nepal as traditional artisanal beverage or coffee flower uses in sweets)
- ❑ Silver skin: consultation to determine novel food status suggested (in Germany at BVL)
- ❑ Food safety must always be ensured independent of novel food status! E.g., check for contaminants, mycotoxins, microbiology etc.

Thank you for your interest

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Review paper (open access) on coffee by-products:

Klingel et al.: A Review of Coffee By-Products Including Leaf, Flower, Cherry, Husk, Silver Skin, and Spent Grounds as Novel Foods within the European Union. Foods 2020, 9, 665. <https://doi.org/10.3390/foods9050665>

Many thanks to

Tábata Rajcic de Rezende, Bundesratsvertretung Novel Food

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Picture sources (if not otherwise stated): own pictures



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