

COMPREHENSIVE UPDATE ON EUROPEAN UNION LABELING STANDARDS FOR COFFEE AND ITS BY-PRODUCTS
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## Regulatory requirements for 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



## Summary novel food status coffee by-products



By-product	Novel Food Status
Spent coffee grounds	Not novel (see NF catalogue).
Green unroasted beans and infusion made of them (non selective water extraction)	Not novel (see NF catalogue). Selective extracts could be novel.
Cascara, husks, dried coffee cherries, mucilage, pulp	Approved as traditional food from third country (beverage uses).
Leaves	Approved as traditional food from third country (herbal infusion, beverage uses).
Flowers	Novel. Probably not a traditional food from third country. Needs approval procedure.
Silver skin	Novel. Needs approval procedure.
Parchment	Novel, currently not approved. No application pending.  Needs approval procedure.
Coffee grounds oil extract	Novel. Probably not a traditional food from third country. Needs approval procedure.



## "Infusion from coffee leaves"









L 209/10

EN

Official Journal of the European Union

2.7.2020

#### **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)

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





Authorized Novel Food	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)
Specified food category	Infusion from coffee leaves of Coffea arabica L. and/or Coffea canephora Pierre ex A. Froehner placed on the market as such; Flavored and unflavored non-alcoholic ready-to-drink beverage; Coffee, coffee and chicory extracts, instant coffee, tea, herbal- and fruit-infusions, coffee substitutes, coffee mixes and instant mixes for beverages (and their flavored counterparts)
Additional specific labelling requirements	The designation of the novel food on the labelling of the foodstuffs containing it shall be 'Infusion from coffee leaves' or 'Dried infusion from coffee leaves', depending on the form to be marketed.
Description/definition	The traditional food consists of an infusion of leaves from Coffea arabica L. and/or Coffea canephora Pierre ex A. Froehner (family: Rubiaceae).
	The traditional food is prepared by mixing a maximum of 20 g of dried leaves from Coffea arabica L. and/or Coffea canephora Pierre ex A. Froehner with 1 L of hot water. Leaves are removed and the infusion is then subjected to pasteurization (at least 71 °C for 15 s).
Composition	Visual: brown green liquid
	Odor and taste: characteristic
	Chlorogenic acid (5-CQA): < 100 mg/L
	Caffeine: < 80 mg/L
Microbiological criteria	Total plate count: < 500 CFU/g
	Total yeast and mold count: < 100 CFU/g
	Total coliforms: < 100 CFU/g
	Escherichia coli: absence in 1 g
	Salmonella: absence in 25 g
Heavy metals	Lead (Pb): $\leq$ 3.0 mg/L, Arsenic (As): $\leq$ 2.0 mg/L, Cadmium (Cd): $\leq$ 1.0 mg/L



## "Dried cherry pulp and its infusion"









L 9/29

#### **COMMISSION IMPLEMENTING REGULATION (EU) 2022/47**

of 13 January 2022

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

(Text with EEA relevance)

https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32022R0047





Authorized Novel Food	Coffea arabica L. and/or Coffea canephora Pierre ex A. Froehner dried cherry pulp and its infusion (Traditional food from a third country)
Specified food category	Coffee cherry pulp from Coffea arabica L. and/or Coffea canephora Pierre ex A. Froehner for the preparation of infusions; Coffee, coffee and chicory extracts, instant coffee, tea, herbal- and fruit-infusions, coffee substitutes, coffee mixes and instant mixes for hot beverages (and their flavored counterparts); Flavored and unflavored non-alcoholic ready-to-drink beverages
Additional specific labelling requirements	The designation of the novel food on the labelling of the foodstuffs containing it shall be "coffee cherry pulp" and/or "cascara (coffee cherry pulp)", and/or "coffee cherry pulp infusion" and/or "coffee cherry pulp dried infusion".  If the product containing the novel food contains more than 150 mg/l of caffeine (as such or after reconstitution), it shall be labelled with the following indication: "High caffeine content. Not recommended for children or pregnant or breast-feeding women" in the same field of vision as the name of the food, followed by the caffeine content expressed in mg per 100 ml.  Typical infusion preparations are prepared with up to 6 g of coffee cherry pulp per 100 ml of hot water (> 75 °C). For the coffee cherry pulp placed on the market as such for the preparation of infusions, instructions shall be given to the consumer on the preparation.'
Description/definition	The traditional food consists of the dried unroasted coffee cherry pulp of Coffea arabica L. and/or Coffea canephora Pierre ex A. Froehner (genus: Coffea family: Rubiaceae) and its infusion. The infusion can be used as such or concentrated or dried.  Ripe coffee cherries are collected, and then the coffee beans are me-chanically removed, prior or after a drying process, leaving the dried coffee cherry pulp, which can be milled to a powder.
	The separated coffee cherry pulp is also known as "cascara", from the Spanish "cáscara", meaning "husk".  Typically, the infusion is prepared by mixing up to 6 g of cascara pulp or husk in 100 ml of hot water (> 75 °C) for a few minutes and then pouring through a strainer, or using corresponding amounts in dried or instant infusions





Authorized Novel Food	Coffea arabica L. and/or Coffea canephora Pierre ex A. Froehner dried cherry pulp and its infusion (Traditional food from a third country)
Composition	Water: < 18 %; Water activity (aw): $\leq$ 0.65; Ash: < 10.4 % Dry Matter (DM); Protein: < 15 % DM; Fat: < 5 % DM; Carbohydrates: < 85 % DM
Microbiological criteria	Aerobic Plate Count: < 104 CFU/g; Total yeasts and molds: < 100 CFU/g; Enterobacteriaceae: < 50 CFU/g; Salmonella: Absence in 25 g; Bacillus cereus: < 100 CFU/g
Mycotoxins	Ochratoxin A: < 5.0 μg/kg; Aflatoxin B1: < 2.0 μg/kg; Aflatoxin B1. B2. G1. G2 (as sum): < 4.0 μg/kg
Heavy metals	Cadmium (Cd): $< 0.05$ mg/kg; Lead (Pb): $< 1.0$ mg/kg; Copper: $\le 50$ mg/kg; Mercury: $\le 0.02$ mg/kg; Arsenic: $\le 0.2$ mg/kg
Impurities	Benzo(a)pyrene: < 10.0 μg/kg; Sum of benzo(a)pyrene, benz(a)anthracene, benzo(b)fluoranthene and chrysene: < 50.0 μg/kg
Pesticides	Pesticide levels in the traditional food shall comply with levels set by Regulation (EC) No $396/2005$ for "0639000" for "Herbal infusions from any other parts of the plant".



# Labelling



## Food Information Regulation 1169/2011



Mandatory labelling only for pre-packed items

#### **Exceptions:**

Loose items, i.e. items not pre-packed and not in self-service  $\rightarrow$  no labelling requirement for coffee beverages with service (except some allergens not usually relevant for coffee by-products)

## Mandatory particulars on coffee labels



- name of the food
- list of ingredients
- quantity of certain ingredients
- net quantity of the food\*
- instruction for use
- date of minimum durability ("best before": …)
  - [Lot according to directive 2011/91/EU]
- food business operator in EU (name & address)
- nutrition declaration (except pure coffee/tea)

\* Larger font size (2-6 mm) [German national regulation]

Font size: > 1.2 mm x-height



## Font size: x-height



#### **DEFINITION OF x-HEIGHT**

x-HEIGHT



# 1 Ascender line 2 Cap line 3 Mean line 4 Baseline 5 Descender line 6 x-height 7 Font size

## Same field of vision / Language



- Name of the food
- Net quantity of the food

Must appear in the same field of vision!

Language: "easy to understand" (i.e. primary language in sales market, English-only is not sufficient in non-English speaking countries such as Germany)

## Additional particulars for coffee by-product



- name of the food according to CIR 2017/ 2470 ("coffee cherry pulp", "cascara (coffee cherry pulp)", "coffee cherry pulp infusion", "coffee cherry pulp dried infusion", "Infusion from coffee leaves, "Dried infusion from coffee leaves")
- Additional labelling according to CIR 2017/2470 for dried cherry pulp and its infusion if caffeine  $> 150 \, \text{mg/I}$

# Voluntary labelling claims and online commerce cvua Karlsruhe



- voluntary claims such as '100 % Arabica' must not mislead or deceive the consumer.
- mandatory labeling elements, with the exception of the date of minimum durability, must be available in online commerce
- Health-claims and specifically caffeine-related claims: typically not permissible (see ICC2024 presentation: Surveillance of Unregulated Caffeine Health Claims on Coffee and Other Foods—A Market Analysis)



## Sample label (dried product)





#### **Fruit Infusion with Cascara**

e500 g

Ingredients: Apple pieces, <u>Cascara (Coffee</u> Cherry Pulp) (35 %), Rosehip, Hibiscus

Preparation: 6 g in 100 ml boiling water, 5 min

Tea Store XY, XY-Street 10, 12345 XY best before: 01.10.2024

Same field of vision!

Minimum font size:
1.2 mm
x-height \*

\* Net quantity min. 4 mm, e-Symbol min. 3 mm (German national regulation)



## Sample label (RTD liquid product)









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## Problems in the Regulation



- Confusing names for the infusions in CIR 2017/2470: "dried infusion from coffee leaves"/"coffee cherry pulp dried infusion" (probably a translation error: "dried extract" instead of "dried infusion"?)
- The legal designation "pulp" is not completely correct for cascara from dry processing (dried husks containing the peel, pulp, and parchment)
- Coffee leaves and coffee cherry pulp shall only be used to prepare beverages, even though they have the potential to be used as ingredients in other food products, such as bread, to increase protein content, etc.

## THANK YOU



