

TEA & HERBAL INFUSIONS EUROPE

Formerly: European Tea Committee (ETC) and European Herbal Infusions Association (EHIA)



Status: November 2022

Political Statement regarding tea bags, plastics and packaging

The tea and herbal infusions sector recognises the concerns of consumers in relation to packaging and plastic waste and understands that the whole of the food & drink industry can, and should, play a role alongside other industries, in exploring opportunities to reduce, reuse, recover or recycle plastics and packaging. Producers of tea and herbal infusions have made great progress in reviewing the materials used to make tea bags and all elements of packaging, wrapping and/or casing.

Just like other sectors, tea and herbal infusions must comply with all relevant aspects of the Packaging and Packing Waste Directive (PPWD). As new materials are developed to meet the needs of consumers and address the new regulations proposed under the PPWD, the following is needed:

- The European Commission's support to improve infrastructure and consistency of waste collections across the EU.
- A consistent approach to the definition of biodegradable, compostable (home and industrial), and biobased plastics based on recognised standards.
- The European Commission to lead the way in the development of a harmonised approach to environmental labelling so that clear messages can be provided to consumers.

Tea bags

Tea bags are not to be considered as packaging according to article 3(1) of the EU PPWD, which states an item should not be considered as packaging if it "is an integral part of a product and it is necessary to contain, support or preserve that product throughout its lifetime." Nevertheless, the sector has been working hard to ensure that plant-based plastic tea bags or paper tea bags sealed with plant-based plastics can be disposed of via industrial composting. Non-heat sealable tea bags made from plant fibres are degradable via home composting under appropriate conditions. After use, any type of tea bag can also be ripped open and the spent tea leaves placed in home composters, before disposing of the tea bag paper separately in the appropriate bin.

The majority of tea bags sold on the European market are made from plant fibres e.g., from the East Asian banana species Abacá (*Musa textilis*) and wood species, or plant-based fibres such as PLA (Polylactic acid). Bags with conventional plastic (PP and PE) heat seals still form part of the supply but the use of such fossil fuel-based plastics is gradually changing to the use of plant-based PLA fibre. Bags solely from conventional plastic (based on fossil fuels) such as Nylon or Polyethylene terephthalate (PET) represent a small percentage of the products available on the European market and are now rarely made of nylon or PET but are mostly made of a biodegradable polymer, such as PLA (polylactic acid).

95% of a spent tea bag is tea, which is 100% biodegradable and can make a valuable contribution to compost. Research by Wageningen University & Research (2020)¹ has shown that compostable tea bags degrade well and do not have a negative impact on the composting process or on compost product quality. As regards the waste streams of tea leaves, these are highly desirable as raw materials in organic household waste: they are 100% biodegradable, and produce more and cleaner compost, making for a sustainable cycle because the raw materials are reused.

¹ Maarten van der Zee and Karin Molenveld (2020). The fate of (compostable) plastic products in a full scale industrial organic waste treatment facility. Source: <https://www.wur.nl/nl/Publicatie-details.htm?publicationId=publication-way-353631333436>.



Packaging materials for tea bags

Some tea bags are wrapped individually in paper or plastic wrappers. Typically made from plain, coated or metallised paper and/or plastic films, these envelope sachets protect the product from aroma loss or odour absorption, providing a clean and hygienic solution for providing tea in communal environments, such as cafes, hotel rooms and office kitchens. Increasingly, however, such wrappers are also being converted to materials that are biodegradable or compostable.

Tea bags tend to be packed in cartons, typically made of cardboard, which sometimes have a plastic overwrap. Whilst these overwraps can provide a barrier to moisture, aromas and other contaminants, the industry is working towards the removal of this plastic.

The EC Policy Framework on Biobased Plastics (BBP), Biodegradable and Compostable Plastics (BDCP)

The recycling and disposal methods and regulations differ per EU country and even per region within a country, adding complexity to the collection and recycling of tea bags. A coherent regulatory landscape is fundamental for sustainable investments and needs to provide the industry with freedom of material choice that allows space to innovate and to compete, while focusing on improving the overall product environmental footprint.

The tea and herbal infusions sector support the use of compostable materials for tea bags that can be disposed of jointly with bio-waste, provided their use is aligned with the bio-waste treatment infrastructure (home or industrial) in selling markets. Composting is a dedicated recovery option for biodegradable materials for which the EU needs to ensure policy coherence between European and National legislation.

The tea and herbal infusions sector welcomes the European Commission's initiative to establish a harmonised regulatory framework for biobased plastics (BBP), biodegradable and compostable plastics (BDCP) based on recognised international standards and science. To support this, the following is needed:

- Clarity of definitions. A clear distinction should be made between biobased, biodegradable and compostable plastics to ensure that there is an appropriate end-of-life infrastructure and to avoid consumer confusion.
- An EU Standard establishing technical requirements and evaluation criteria for biobased, biodegradable and compostable plastics.
- A harmonised waste collection across the EU. This way, a clear message can be given to consumers that biodegradable tea bags can be composted in home and industrial composting units if they meet the technical requirements and provided that their use is aligned with the bio-waste treatment infrastructure (home or industrial) in selling markets.
- Consumer campaigns to create awareness on correct disposal of BBP and BDCP.
- Business operators' freedom of material choice should be maintained. Innovation in packaging and casing materials and end-of-life infrastructure solutions are crucial for a competitive European industry. A political framework should enable this freedom and focus on conditions supporting circularity.

Examples of tea bags commonly found on the European market

Table 1 shows an overview of the most common tea bags on the European market that are made of plant fibres.

Table 1. Overview of different tea bag types made from plant fibres.

 <p>1a (Source:¹)</p>	 <p>1b (Source:²)</p>	 <p>1c (Source:³)</p>
<p>Single chamber tea bag</p>	<p>Double chamber tea bag</p>	<p>(Round) tea bag/pod without thread. Square shaped are also available.</p>

In the case of 1a and 1c the bag edges can be sealed with conventional plastic, however as mentioned the industry is gradually moving towards the use of PLA (polylacticacid) for the seals. PLA is a plastic derived from plant sources and it can be composted under industrial conditions, so consumers can put these tea bags in their food and/or garden waste bins where such collections are available.

Table 2 shows a specific type of tea bag that only accounts for a small percentage of the European market: so-called pyramid tea bags. These were often made from nylon in the past, but this is increasingly rare and today they usually made from PLA and as such they are industrially compostable.

Table 2. Pyramid tea bags made from nylon (left) and PLA (right)

 <p>2a (Source:⁴)</p>	 <p>2b (Source:⁵)</p>
<p>Pyramid tea bag made from nylon</p>	<p>Pyramid tea bag made from PLA</p>

1 <https://www.teabagmachine.com/index.php/machines/single-chamber-teabagmachines/sc-130-c>
 2 <https://www.teepack.com/en/meta/glossary/entry/double-chamber-tea-bag-also-two-chamber-tea-bag/>
 3 <https://www.irishmirror.ie/lifestyle/its-385th-anniversary-tea-uk-8895138>
 4 http://coresh.com/wp/a_nylon-pet-tea-bag/
 5 http://coresh.com/wp/a_pla-tea-bag/



The economic importance of the Tea & Herbal Infusions sector

Over the past centuries tea and herbal infusions have been among the most popular beverages in the world, with tea being the world's most widely consumed beverage after water.

Europe is an important consumer market for tea, and the tea bush is grown in over 80 countries around the world. Tea production is a main source of income and export revenues for some of the poorest countries. According to the United Nations, tea production and processing represent a source of livelihood for millions of families, including those some of the poorest living in least developed countries. The UN also state, tea export earnings help to finance food import bills, supporting the economies of major tea-producing countries.

Europe is the world's Nr. 1 market for herbal and fruit infusions. The sector is dominated by small and medium sized companies, which drive job creation in Europe. The cultivation and wildcrafting of small-scale speciality crops promote biodiversity and provides a large number of small-scale growers and wild collectors with additional income possibilities. By securing and promoting small-scale farming and wild gathering, the supply of herbal infusions positively affects the livelihoods of thousands of suppliers around the globe.

The market value for tea and herbal and fruit infusions in Europe is about 5 bio. EUR and thousands of jobs are either connected by the tea and herbal and fruit infusions industry directly or via affiliated services such as laboratories, packaging, logistic and transport. Therefore, tea and herbal and fruit infusions make a significant contribution to the economy of Europe.

About THIE

THIE is the European Association representing the interests of producers, traders and packers of tea and herbal and fruit infusions; as well as extracts thereof.

- Tea is derived solely and exclusively from the shoots of varieties of the species *Camellia sinensis* (L) O. Kuntze and produced by acceptable manufacturing processes. Tea is intended for brewing using freshly boiling water for consumption as a beverage. Tea is an agricultural product that is grown, harvested and primary-processed at origin. Although black and green tea are the most commonly known, other types of tea can be produced as a result of different processing methods.
- Herbal and fruit infusions (HFI) materials are plants or parts of plants that do not originate from the tea plant (*Camellia sinensis* (L.) O. Kuntze) and are intended for food use by brewing with freshly boiling water. They also include blends that may contain tea as a minor component.

Information on the approximately 300 plants (and parts of plants) commonly used in herbal and fruit infusions can be found in the THIE Inventory list of herbals considered as food. Raw materials used for the production of herbal and fruit infusions are agricultural products which are sourced globally and are grown in developed and developing countries. They are cultivated by small growers or even wild gathered.