Understanding Sourdough: building a common ground

Introduction

The need for common ground

Sourdough production is a traditional bread making practice, that, until the middle of the 19th Century, was the main way to make leavened bread by fermentation. Sourdough carries strong cultural and traditional aspects, which have been preserved throughout the years. This has led to a large variety and diversity of sourdoughs available on the market nowadays, as well as a difficulty in the classification and definition of sourdough due to its inherent use as a leavening agent and/or as an ingredient.

Despite this variety and differences, a common ground on the forms and the use of sourdough can be found.

Moreover, this common understanding is essential in the absence of the harmonization of sourdough definitions across the European Union, in order to ensure the protection of the interest of the consumers, safeguard the integrity of the term “sourdough” and its heritage while securing the functioning of the internal market.

The aim of this paper is to bring to light and highlight this common ground, in respect with existing national regulations and local codes of practice.

What is sourdough?

Sourdough is a typical leavening agent with organoleptic properties in wheat bread production. Sourdough is a distinctive ingredient with its typical acidic characteristic in rye bread production.

In all cases, a sourdough is a characteristic food ingredient\(^1\) obtained from flour of cereals or pseudo-cereals, fermented by microorganisms, mainly lactic acid bacteria and yeast without addition of acids to artificially adapt the acidity.

\(^1\) Sourdough has historically and traditionally been used as a characteristic ingredient of food for its leavening and/or organoleptic properties.
How is sourdough produced?

There are two ways to produce sourdough:

- Sourdough is produced by fermentation of cereals or pseudo-cereals with microorganisms naturally present in the environment and raw material.

- Sourdough is obtained by fermentation of cereals or pseudo-cereals with specifically selected lactic acid bacteria and yeast. These so-called starter cultures or sourdough starters are prepared especially to ferment sourdough in a controlled environment.

The viability of sourdough can be maintained by backslopping. In this process, a living sourdough is used to initiate a new/fresh sourdough production. Sourdough may have a specific name in different countries.

Flour, water, microbiota and fermentation parameters lead to the great diversity in the characteristics of sourdoughs.

The different forms of sourdough

Two main forms of sourdough can be identified:

- **ACTIVE SOURDOUGH**
  
  This form of sourdough can be used as an ingredient to initiate or support the fermentation of a dough in an adequate timescale, or to prepare a new sourdough.

- **INACTIVE SOURDOUGH**
  
  This form of sourdough is an ingredient in which the microbial culture is no longer significantly alive or active for leavening purposes.

The labelling of sourdough

With the aim to improve harmonisation and transparency, the following common ground on the labelling of sourdough has been identified:
Business to business context

In the B2B context, and based on articles 17 and 18.1 of Regulation (EU) No 1169/2011 on food information to consumers, sourdough should be labelled as a compound ingredient, with the following list of ingredients:

- WATER: if applicable (i.e. in the case of liquid sourdoughs)
- SUBSTRATE: type (flour) with botanical origin
- “Sourdough micro-organisms”, “sourdough starter”, “starter cultures”, etc.
- Other permitted ingredients

In line with the requirements set in the above-mentioned Regulation, mandatory particulars may have to be provided.

Business to consumer context

In the final product (B2C), in order to ensure consumers are provided with transparent information while valorising the baker’s process, the breakdown of ingredients mentioned above may also be present in the list of ingredients. Moreover, the following descriptions for labelling can be used (taking bread as an example):

Sourdough bread: Bread fermented with sourdough OR with sourdough and bakers’ yeast.

Bread (prepared) with sourdough: Bread fermented by bakers’ yeast and containing sourdough as an ingredient bringing typical organoleptic characteristics. Its quantity is the one recorded after the sourdough fermentation. The sourdough is listed as an ingredient in accordance with Art 22 and Annex VII and VIII of Regulation (EU) No 1169/2011 on food information to consumers.

The same approach is recommended for all bakery and patisserie applications.

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