

# Comparing the nutritional composition and quality of plant-based foods. A cross-market study.

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## Background & Objectives:

- **Need for changes** in the current food system;
- **High demand** for healthier, sustainable, and eco-friendly foods;
- **Concern over the nutritional quality and potential adverse health impacts** of the processed/ultra-processed **plant-based foods (PBF)**.



**Aim:** Assess the nutritional quality and overall healthiness of Plant-based foods (PBF) in the Portuguese market (PTm), by comparing them with:

- Nacional reference values (RVs) - Portuguese Integrated Strategy for the Promotion of Healthy Eating (EIPAS) & Directorate-General of Health Label Decoder (DGS-LD);
- Animal-origin food (AOF) from PTm;
- Equivalent products (PBF and AOF) from the UK market (UKm).

**Main goals:** To provide insights to inform public health policies and to contribute to the promotion of healthier food choices.

## Methods:

- The nutritional information of **452 PBF and 958 AOF counterparts from the PTm**, as well as **718 PBF and 1494 AOF from the UKm**, was collected from product labels available online and grouped into nine food categories.
- The nutritional information was **evaluated against RVs**, and **compared within/between markets** (PTm and UKm), by **overall food type** (PBF vs AOF), by **subtypes** (non-dairy and dairy), and by **food categories**.

## Results:

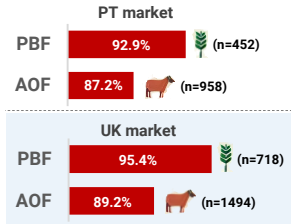


Fig. 1 – Prevalence of the overall PBF and AOF exceeding EIPAS RVs for combined sugar and salt contents in both markets.

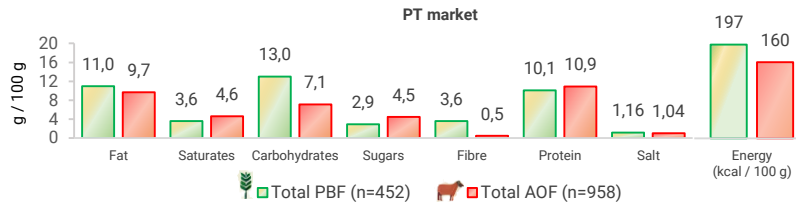


Fig. 2 – Average energy (kcal / 100 g) and nutrient contents (g / 100 g) for the overall PBF and AOF evaluated in the PT market and UK market.

## Key Conclusions:



- ♦ **PBF showed highly variable nutritional composition and quality;**
- ♦ **The majority of PBF exceeded the EIPAS reference values for sugars and salt;**
- ♦ **PBF presented higher fat, carbohydrates, fiber, salt and energy compared to animal-origin foods (AOF) in PTm;**
- ♦ **Many PBF are high in fat, saturates and salt accordingly to the DGS-LD reference values;**
- ♦ **There is an urgent need for public health policies and actions regarding food (re)formulation, labelling, marketing and consumer literacy.**

	PT market				UK market												
	Fat	Saturates	Sugars	Salt	Fat	Saturates	Sugars	Salt									
<b>HIGH</b>	17.7%	20.7%	18.1%	31.0%	0%	0%	29.0%	28.4%	<b>HIGH</b>	18.4%	33.3%	22.6%	45.7%	0%	0%	26.7%	31.1%
<b>MEDIUM</b>	67.3%	38.3%	28.3%	24.5%	17.9%	32.7%	48.9%	26.6%	<b>MEDIUM</b>	71.4%	46.2%	25.2%	24.6%	9.2%	19.7%	62.8%	39.8%
<b>LOW</b>	15.0%	41.0%	53.5%	44.5%	82.1%	67.3%	22.1%	45.0%	<b>LOW</b>	10.2%	20.5%	52.2%	29.7%	90.8%	80.3%	10.4%	29.1%

Fig. 3 – Percentages of PBF and AOF with 'High', 'Medium', and 'Low' levels accordingly the DGS-LD RVs, in both markets.

