## Palm oil free, with more saturated fats

A comparative research on nutritional profile indicated on the packaging of 25 food products in Italy.

Palm oil = more saturated fats? False!

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#### **Abstract**

Palm oil is the victim of a smear campaign for clearly commercial reasons. Many food companies have removed it from their products in order to reduce saturated fats. The absence of palm oil has been clearly highlighted on packaging and in communication, associating this directly or indirectly with being healthier. The aim of this research is to demonstrate that in many cases the absence of palm oil does not correspond to lower levels of saturated fats compared to similar products that do contain palm oil. In other cases, the benefit is barely significant from a nutritional perspective, above all when taking into account the daily diet as a whole<sup>1</sup>. The conclusion arrived at is that the absence of palm oil displayed on packaging risks misleading citizen consumers when it comes to making choices.

<u>Campagne Liberali</u> is a citizens' association that defends freedom of choice and promotes fair scientific debate. It has examined the arguments put forward by many detractors of palm oil, and has used the experimental method to demonstrate that many charges are untrue and tendentious.

### Trade War against Palm Oil

Many brands of food products have decided not to use palm oil (hereinafter referred to as palm or PO) in the preparation of their products. They have done it ostentatiously, making reference to arguments that, in some cases, can be linked to environmental ideologies and health issues in many others, sometimes even to both. Naturally, the reasons underlying these choices are not ideologically based, but evidently linked to business. The abandonment of palm oil in order to pursue a commercial trend can be defined as palmwashing, echoing the more well-known concept of greenwashing. This word is used to describe the marketing and communication strategies put in place by companies, organizations and others, in order to improve their own reputation, in the eyes of the public, with respect to environmental sustainability, with a view to diverting attention from bad practices that are harmful to the environment.

This is the case with palm oil just as it is with many other ingredients and substances that many companies in the food and packaging industry have decided to abandon in order to respond to media pressure in the wake of aggressive campaigns, of doubtful scientific veracity, put forward by a

<sup>&</sup>lt;sup>1</sup> De Souza et al., Intake of saturated and trans unsaturated fatty acids and risk of all-cause mortality, cardiovascular disease, and type 2 diabetes: systematic review and meta-analysis of observational studies, British Medical Journal, 2015; Sette et al., CREA Alimenti e Nutrizione, 2013.



variety of different associations, nongovernmental organizations, and more generally activists who attack and threaten market operators.

For all of these campaigns, including the one constructed against PO, the arguments don't stand up to the facts and above all they are a far removed from any scientific evidence and do not follow any experimental method. In the case of palm oil, for example, there are no scientific studies that prove it is carcinogenic to human health<sup>2</sup>. Even the theme of deforestation, which is undoubtedly a topic of discussion, is tackled in an ideological way, with arguments that do not seek to take on and resolve the issue, but simply tend towards the utopia of ideas that are as generic as they are naive.

#### **Palmwashing**

Many of Italy's small and large food companies have purposely taken the view that palm oil is harmful to health, and that the plantations from which this oil is extracted are the major cause of deforestation. Science and the facts show the opposite to be true. Palm oil is, in fact, not harmful to health if consumed as part of a balanced diet and in moderation<sup>3</sup>. This should be case for all fats, including vegetable oils. Oil palm plantations are some of the most sustainable. In short, what would happen if all the palm plantations were to be eliminated? The inhabitants of the producing regions would replace them, quite rightly, with

other plantations that would be potentially less sustainable than the oil palm.

#### The Ambiguity of the Claims

In this section, we have focused our attention on the vast *palmwashing* campaign that different companies have carried out, to the detriment of citizen consumers, via the nutritional information and the advertising claims added to packaging, and displayed in retail centres or communicated for advertising purposes. This study intends to investigate the correctness towards citizens of information, advertising (claims) and labelling. Nutritional labels and the information tables will be highlighted, in particular with regard to saturated fats, the type of oils and fats used and the claims made on the packaging of the different brands being examined.

Detractors of these ingredients often challenge the fact that it is present in many snacks, products packaged for breakfast and break times and therefore, products targeting younger people, increasing the presence of fats in the formulations, and in particular of saturated fats<sup>4</sup>. The aim of this research, therefore, is to understand whether, for specific categories of products, the presence or otherwise of palm oil is actually instrumental at the level of total and saturated fats. Put simply, the question that has been posed is: does the presence of palm oil mean more fats, above all saturated,

<sup>&</sup>lt;sup>4</sup> WHO in 2015 issued the *Fact Sheet n.394* that contained the guidelines on saturated fats recommended consumption. WHO says that individuals should not exceed the 10% of daily caloric needs through the consumption of saturated fats. Generally, as reported by the Italian Health Ministry and the CRA-NUT organization, "the total amount of fats that ensures good health may vary at individual level depending on sexuality, age and lifestyle: from 20-25% of daily caloric intake (for a sedentary person) to a maximum of 35% (for a high-intensity trained person)". These scientific guidelines confirm how it is conceptually erroneous to consider a "saturated-fat free" diet systematically healthier than a balanced diet where saturated fat do not exceed the 10% of the daily caloric intake.



<sup>&</sup>lt;sup>2</sup> E. Fattore, R. Fanelli, *Palm oil and palmitic acid: a review on cardiovascular effects and carcinogenicity*, International Journal of Food Science and Nutrition, 2013.

<sup>&</sup>lt;sup>3</sup> There are a number of studies supporting this theory, one of which was published by the Department of Public and Veterinary Health and Food Safety of the Italian National Institute of Health in 2016. This document is available for consultation at the following link: <a href="http://campagneliberali.org/oliodipalma/files/2016/09/">http://campagneliberali.org/oliodipalma/files/2016/09/</a> C 17 pubblicazioni 2481 allegato.pdf.

To view other accredited scientific studies on the topic, consult the following section on the *Campagne Liberali* website: http://campagneliberali.org/oliodipalma/scienza-e-verita/.

when compared to products where it has been eliminated?

This study does not analyse the chemical aspects of the ingredients contained in the products and it is based on a simple, but efficacious comparison between labels and nutrition facts tables. The products examined were chosen on the basis of the type of food selected and their widespread consumption among the younger age ranges of the population. Neither is this research a medical study intended to highlight the effect on the health of individuals of the ingredients being considered.

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A large part of the campaign against this ingredient has, in recent years, played on this axiom, namely, palm oil = high levels of saturated fat. Different companies, startled by the fuss created in the media and politically, preferred to remove palm oil with a palmwashing operation, and replace it with other fats and vegetable oils. But what has it been replaced with? In the main by coconut oil, sunflower oil, corn oil, but also butter, cocoa butter and shea butter. We'd like to point out that the first three oils are less sustainable than palm oil, when one takes into account production per hectare<sup>5</sup>.

Based on the declarations and claims by the brands that have replaced palm oil in the ingredients, the nutritional profile with the new formulations and the new ingredients ought to demonstrate the clear superiority of alternative fats over palm oil. However, all it took was a comparison of some nutrition facts tables and a check of the ingredients of a number of products divided according to type, to understand the fallacy of the axiom stated above. The advertising and media messages that are made to appear as though they are the absolute truth, clearly fall apart in the face of factual evidence.

## Palm Free with same Saturated Fat levels.

Results have shown that replacing palm oil with other vegetable or animal fats does not automatically result in an improved nutritional profile from the point of view of lipids. Quite the opposite, in fact. There are a number of products containing palm oil that have less fats, both total and saturated, compared to the corresponding "palm free" products.

The following table, drawn up by *Campagne Liberali*, contains the information included by the different brands on the packaging of certain products, broken down into types, and is useful for clarifying the concepts described to this point. The products were chosen on the basis of what was available on the main shelves of major retail outlets. The choice does not have a representative value, nor does it have any commercial purpose, but it merely intends to demonstrate how the substitution of palm oil has led to little improvement and in fact probably even none, in many products targeting, in the main, adolescents.

<sup>&</sup>lt;sup>5</sup> The oil palm is the most productive oil plant in the world. One hectare of land can produce around 4 tonnes of palm oil, 0.8 tonnes of rapeseed, 0.6 tonnes of sunflower and 0.4 tonnes of soya. Thanks to the higher yield, palm oil contributes to more than 30% of the total agricultural output of vegetable oils, occupying only 6% of the total areas intended for the agricultural production of vegetable oils in the world. For more information: <a href="http://campagneliberali.org/oliodipalma/olio-di-palma-e-lambiente/">http://campagneliberali.org/oliodipalma/olio-di-palma-e-lambiente/</a>.



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Table 1 – Comparative analysis of nutritional profile and packaged product claims (different brands) – Source: Elaboration by Campagne Liberali on the basis of packaging found on the market or on company websites.

| Brand              | Product/Type  | % Fats<br>in 100g | Of which saturated fats | Claim:<br>"Palm Oil<br>Free" | Ingredients   |
|--------------------|---|-------------------|-------------------------|------------------------------|---|
| Barilla            | Nastrine/Braided puff-<br>pastry snack                  | 28                | 15                      | yes                          | cocoa butter, sunflower oil, coconut oil, safflower oil, butter |
| Colussi/<br>Misura | Classic cornetto  | 25                | 8.1                     | yes                          | sunflower oil, shea butter                                      |
| Barilla            | Chocolate filled croissant                              | 23.5              | 12.5                    | yes                          | sunflower seed oil, coconut oil, safflower oil                  |
| Bauli              | Classic cornetto  | 22.5              | 11.5                    | no                           | palm oil, sunflower oil   |
| Bauli              | Amor di sfoglia/Braided puff-pastry snack               | 22.25             | 11.5                    | no                           | palm oil, sunflower oil   |
| Bauli              | Chocolate filled croissant                              | 20                | 10.2                    | no                           | palm oil, sunflower oil   |
| Motta              | Classic cornetto  | 13                | 6.1                     | no                           | palm oil, sunflower oil   |
| Motta              | Chocolate filled croissant                              | 13                | 6.1                     | no                           | palm oil, sunflower oil   |
| Brand              | Product/Type  | % Fats<br>in 100g | Of which saturated fats | Claim:<br>"Palm Oil<br>Free" | Ingredients   |
| Barilla            | Abbracci/Chocolate and cream shortbread biscuits        | 23.5              | 10.5                    | yes                          | butter, sunflower oil   |
| Balocco            | Girandole/Chocolate<br>and cream shortbread<br>biscuits | 22                | 9.2                     | yes                          | sunflower oil, cocoa<br>butter, butter                          |
| Simply             | Chocolate and cream shortbread biscuits                 | 21.7              | 10.7                    | no                           | palm oil, butter  |
| Bauli              | Farfallegre/Chocolate chip and milk shortbread biscuits | 18.7              | 10.2                    | no                           | palm oil, coconut oil   |

<sup>\*</sup>This symbol distinguishes the commercial products of which it is still possible to find the version with and without palm oil



| Brand  | Product/Type  | % Fats<br>in 100g               | Of which<br>saturated<br>fats   | Claim: "Palm<br>Oil Free"     | Ingredients  |
|--|---|---------------------------------|---------------------------------|-------------------------------|--|
| Mondelez   | Milka/Chocolate wafer   | 28                              | 18                              | no                            | palm oil   |
| Galbusera*   | Buonicosì/Wafers with cocoa cream (single dose)   | 28                              | 16,5                            | no                            | palm oil, corn oil   |
| Galbusera*   | Buonicosì/Wafers with cocoa cream   | 27.3                            | 21.3                            | yes                           | coconut oil, corn oil  |
| Loacker  | Napolitaner/Wafers with cocoa cream   | 27                              | 22                              | no                            | palm oil   |
| Nestlé   | KitKat/Chocolate wafer  | 26                              | 18                              | no                            | palm oil, cocoa butter                                       |
| Balocco  | Napolitaner/Wafers with cocoa cream   | 25                              | 22                              | yes                           | coconut oil  |
| Соор   | Napolitaner/Wafers with cocoa cream   | 24.8                            | 21.6                            | yes                           | coconut oil  |
| Brand  | Product/Type  | % Fats in 100g                  | Of which saturated fats         | Claim: "Palm<br>Oil Free"     | Ingredients  |
|  |   |                                 |                                 |                               |  |
| Ringo  | Goal/Biscuit and chocolate snack  | 25                              | 13.7                            | yes                           | sunflower oil, butter  |
| Ringo<br>Saiwa   |   | 25<br>23                        | 13.7                            | yes                           | sunflower oil, butter cocoa butter, palm oil                 |
| , and the second | chocolate snack Oro Ciok/Chocolate-   |                                 |                                 | •                             |  |
| Saiwa  | chocolate snack  Oro Ciok/Chocolate-based biscuit snack  Chocolate-based biscuit  | 23                              | 12                              | no                            | cocoa butter, palm oil                                       |
| Saiwa<br>Coop  | chocolate snack  Oro Ciok/Chocolate- based biscuit snack  Chocolate-based biscuit snack   | 23<br>21.3<br>% Fats            | 12 12.9 Of which saturated      | no yes Claim: "Palm           | cocoa butter, palm oil cocoa butter, cocoa paste             |
| Saiwa<br>Coop<br>Brand   | chocolate snack  Oro Ciok/Chocolate- based biscuit snack  Chocolate-based biscuit snack  Product/Type  Crostatine all'albicocca | 23<br>21.3<br>% Fats<br>in 100g | 12 12.9 Of which saturated fats | no yes Claim: "Palm Oil Free" | cocoa butter, palm oil cocoa butter, cocoa paste Ingredients |



What emerges from Table 1, is that the "palm oil free" claim and the consequent replacement with different vegetable oils, in those products examined by this study, does not necessarily correspond with an improved nutritional profile, from the point of view of saturated fats, when compared to brands that do use palm oil in their ingredients.

In the first segment examined, the packaged cornetti/croissants already provide a clear picture: the products (of the brands Barilla and Colussi/Misura) that advertise the exclusion of palm oil on their packaging, compared to similar brands (Motta and Bauli), that do use palm oil, are clearly worse from the point of view of lipids. Barilla's chocolate-filled croissant contains 23.5 g of fats per 100 g of product, of which 12.5 g are saturated, using a mix of sunflower, coconut and safflower oil. Motta's chocolate-filled croissant, that uses palm oil instead, has only 13 g of fats per 100 g of product, and only 6 g are saturated. Colussi "palm oil free", even if it looks better than Barilla where it says saturated fats, still has a fat content, considering both total and saturated fats, that is higher than Motta's "with palm oil": 25 g total and 8.1 g saturated.

Similar conditions appear on "palm oil free" products placed on the market by the company Barilla, such as their Nastrine when compared to other "with palm oil" products, such as Bauli's Amor di Sfoglia. According to the nutrition facts table, the first product shows a saturated fats content that is far higher if compared to the second: the Nastrine have almost 30% more saturated fats (15/100g vs. 11.5/100 g).

#### **BOX 1 - Comparative claims**

The citizen/consumer should pay particular attention to the so-called comparative claims. That is to say all those "messages", often found on packaging of food products, aimed at advertising improved nutritional values as a result of new formulations of different ingredients. Regulation (EC) No. 1924/2006 on nutrition and health claims allows companies to make comparisons on nutritional values only in relation to the average of the reference benchmark, and not to the same product's previous formulations. Any claim that contains wording such as "contains 30% less saturated fats compared to the previous formula" for example, is illegal, and therefore punishable. Some large companies have made use of such improper information and this has already been pointed out by many. It has also been pointed out that, if the comparison were to be made in accordance with the law, i.e. with respect to the market average, the values shown would be really much lower and often hardly detectable.

On the biscuit front too<sup>6</sup>, the comparative study has shown cases similar to the ones above. The "chocolate and cream shortbread biscuits" category was examined. The products were: Barilla's Abbracci, Simply's Cream and Chocolate Shortbreads, Balocco's Girandole and Bauli's Farfallegre. The Simply and Bauli biscuits contain palm oil, and yet they appear to be the best when it comes to total fat content (21.7 g and 18.7 g, respectively). What is more, when it comes to saturated fats, they have an intermediate profile compared to the benchmark selected for this comparison.

<sup>&</sup>lt;sup>6</sup> It has to be emphasized that, for the "biscuits" segment, the variety of products is by far greater compared to the other categories. This segment would therefore merit a separate analysis to check further instances of divergence between claims, advertising and real nutritional profiles.



The results are equally significant when it comes to the category including wafers, snacks with wafer and chocolate and tartlets, all foods that are very popular among the younger age ranges, who should be particularly protected. The products containing palm oil do not have worse nutritional profiles compared to those that publicize they don't contain any. The table shows that they have similar values: Oro Cioks with palm oil contain 12 g of saturated fats per 100 g of product, whereas Ringos contain 13.7 g. Even the ingredients of Milka and KitKat, chocolate coated wafers, show they contain palm oil, and yet they prove to be better than other palm free products with an average difference of 4 g in terms of saturated fats. Even the comparison between the fruit tartlets appears to show likewise. Germinal's product with palm oil contains 4.2 g saturated fats per 100 g of product, ranking in an intermediate position between Barilla's tartlets (5.5 g) and the Coop's (3.4 g).

Palm oil is not a determining factor when it comes to the quantity of total and saturated fats present in a mass-produced product.

#### **Conclusions**

Net of variables such as the technology used for processing the industrial products and the quality of the raw materials, that are nevertheless deeply significant and influential in defining the value of the output, this analysis appears to confirm the starting premise, according to which palm oil is not a determining factor when it comes to the quantity of total and saturated fats present in a mass-produced product.

On the contrary, different products that use alternative oils such as sunflower seed, coconut, corn and safflower oil or shea butter, or animal fats such as butter and cream, do not necessarily have a better nutritional profile from the point of view of lipids. For this reason, a somewhat misleading message is often put out by the media, some political parties (see different parliamentary guidance documents and not just) and, at times, by the companies themselves, stating that a product without palm oil is better from a nutritional point of view.

The citizen, in this case the consumer, is duped by the "palm oil free" claim<sup>7</sup>. It is therefore more and more necessary to cast a critical eye over information and advertising, in particular when it targets children and the younger age ranges. To discriminate against palm oil on the basis of health and fats is a type of misinformation that contrasts with an analysis of the facts and the scientific method according to which, in order for a theorem to be assumed to be true, it must be supported by evidence and empirical proof. In this case the theorem, as proven by the facts, confirms to be unreliable and inconsistent.

<sup>&</sup>lt;sup>7</sup> The "- free" labels on packaging are used for commercial ends with the clear aim of convincing a consumer to buy a product. The influence of the claims on consumers' choices has been examined by different studies. See, on this subject: Priven M, Baum J, Vieira E, Fung T, Herbold N. (2015), *The Influence of a Factitious Free-From Food Product Label on Consumer Perceptions of Healthfulness* o EUFIC (2017) *Consumer Attitudes Towards* "*Free-From*" *Labels*. Consumers are in this way led into believing that the "- free" label on the packaging corresponds to healthier products that are, for this reason, associated with wellbeing. Many of the "- free" labels therefore appear deceptive because they mislead consumers into buying products that are not necessarily healthier, safer or more environmentally friendly. The "palm oil free" claim is an example of this. In addition to this, in the case of palm oil the extremely powerful media campaign of the recent years has contributed to adding a health value to a simple piece of information, which revealed itself to be crucial when it comes to marketing choices.



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