

18<sup>th</sup> August 2021

Dear COEN Steering Committee,

We thank you for the opportunity to offer inputs as you consider the scientific basis for Nutri-Score updates, with consideration to further Dietary Guideline alignment, encouraging consumers towards healthier choices and importantly stimulating product reformulation and healthier innovations.

In this framework, and mindful of the COEN mandate, we would like to raise your attention on the opportunity for the Nutri-Score algorithm to better incentivise the use of nuts in products and diets, as recommended by the dietary guidelines of many, if not all, EU countries.

**While there is scientific consensus on the nutritional and health benefits of nuts, the current Nutri-Score algorithm risks inadvertently disincentivising inclusion of nuts in products.**

Nuts are recommended in nearly all EU-27 country dietary guidelines, where quantitative these typically recommend intakes of 20-30g/day. Despite widespread availability of nuts, intakes remain very low compared to recommendations, nuts and nut-containing products are a means to support higher intakes. A systematic analysis for the Global Burden of Disease Study ranked diets low in nuts as a leading dietary risk factor for deaths across Europe<sup>1</sup>. This reflects scientific consensus on nuts as nutritional powerhouses, associated with health benefits.

The Nutri-Score algorithm recognises the value of nuts, grouping them with other positive dietary components - fruit, vegetables, legumes, and oils. Currently, they are treated equally in regard to quantities needed for attribution of Positive points. However, using the same metric (% weight in the product) for fruits and vegetables, and for nuts does not reflect the difference in recommended intake amounts. Indeed, European dietary guidelines recommend daily consumption of 450-500g of fruit and vegetables, vs. 20-30g of nuts.

Nuts can feature in all eating occasions, from breakfast, to snacking, meals and treats. Nut containing products either contain a very high percentage of nuts (>90% - flavoured nuts), but most nut containing products typically bring less than 40% excepting a few food sub-categories. Achieving recommendations will necessitate incremental actions beyond what the current food landscape offers, requiring products across different food categories, that are accessible to different population groups to include both more nuts and a variety of nuts. This should be alongside positive and consistent communications on the value of nuts in the diet.

We are concerned that the Nutri-Score algorithm risks inadvertently disincentivising inclusion of nuts in products. We have undertaken specific analyses, evaluating nine different types of nuts, to assess how the current Nutri-Score algorithm impacts the rating of nuts and nut-containing products, with regard to product reformulation and innovation.

Our observations demonstrate the following:

- Plain nuts, labelled with Nutri-Score online or in consumer apps rate as A, B, C, or D
- Adding nuts can increase the net Nutri-Score score (poorer nutritional quality), signalling that adding nuts worsens a product.

This is exemplified in the table below, which summarises the net effect on the current Nutri-Score score for nine types of nuts, present at 41% in a nut containing food product:

Net difference between N & P points from nut nutrient contributions alone in a product discounting protein points due to 11 point lever									
Nut %	Almond	Brazil	Cashew	Hazelnut	Macadamia	Peanut	Pecan	Pistachio	Walnut
<b>41</b>	-2	+6	+3	-2	+3	+2	+1	0	+2

- The N/P balance does not compensate for inherent nut nutrition thus driving higher N scores
- From a technical perspective, the Nutri-Score algorithm creates two important levers that influence reformulation and innovation of products:
  - The need to keep N points as low as possible
  - Keeping N points less than 11 to secure P protein points, where available
- Nuts are nutritionally dense foods, that bring many relevant positive nutrients, including polyunsaturated fats, vitamins, minerals, protein, and fibre, only some of which are fully accounted for in the NutriScore algorithm.
- In the case of nuts the inherent naturally occurring saturated fat, and energy density results in high N scores:

N points scored from naturally occurring nutrients in Nut Containing Product, 41% Nuts									
	Almond	Brazil	Cashew	Hazelnut	Macadamia	Peanut	Pecan	Pistachio	Walnut
<b>Energy</b>	3	3	3	3	3	3	3	3	3
<b>Sat Fat</b>	1	6	3	1	4	3	2	2	2
<b>Total</b>	<b>4</b>	<b>9</b>	<b>6</b>	<b>4</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>5</b>

- Saturated fat is a key driver of the variation observed in N point scores (range 1-6)
- From a technical perspective when developing products e.g., a product with 41% nuts, the remaining ingredients comprising 59% of the product would ideally avoid reaching the 11 point lever.
- However, the gap before reaching the 11 point lever spans from 2 N to 7 N points, with all nuts affected to varying extents.
- This is highly challenging for product development as the ingredients needed for the remaining 59% of the product will as a minimum bring energy, and possibly other N points; once this happens the protein points that the nuts provided are discounted.
- Obtaining a favourable NutriScore for products containing 41% Brazil or Macadamia nuts is impossible in practice:
  - Total N points for 41% Brazil nuts = 9, any ingredient for the remaining 59%, even energy from carbohydrate will bring 2 N points, thus discounting 4 protein points so the net impact of adding Brazil nuts will count as 9N points and 3 P points.
- This remains extremely challenging and difficult for all nuts, even almonds scoring 4 N points represents a significant proportion of N points prior to reaching the 11 point lever.

- More importantly this also risks that only certain nuts would be favoured in product development, risking a loss of dietary variety, and that at best only a few types of nuts are identifiable to consumers as healthful.
- Therefore, the Nutri-Score algorithm can dis-incentivise inclusion of nuts in products with positive protein points often discounted, driven partly or close to fully as a consequence of the nutrients inherent to the nut.
  - This is shown when adding walnuts to a product, which should in principle decrease the Nutri-Score score but instead increases the score across varying % thresholds:

Net difference between N & P points from walnut nutrient contributions alone - nut-product with $\geq 11$ N points						
% of nuts	20%	40%	41%	61%	80%	100%
<b>N Points</b>	2	5	5	8	11	14
<b>P points</b>	2	2	3	6	15	15
<b>Net Impact</b>	0	+3	+2	+2	-4	-1

From a product development perspective adding nuts to a product, brings certain disadvantages compared to other ingredients:

- the scoring and balance of N and P points is not modifiable, the nutrients in nuts cannot be reformulated. Unlike other individual ingredients (sugar, salt, fibre) it is a composite where levels of saturates, unsaturated, fibres etc. cannot be adjusted.
- is weighted towards a high N score as nuts score highly on their inherent energy density and saturated fat content, irrespective of their healthier fat profile and overall dietary value
- more easily leads to exclusion of protein points, despite protein representing a proxy for the positive components brought by this food group that are not considered in the algorithm
- can have a highly variable impact on the product depending on the % of nuts

The N/P balance does not compensate for the naturally occurring nutrients, coming from nuts, that drive higher N scores. This makes developing a product with a moderate proportion of nuts that scores or classifies well (letter/colour) with the Nutri-Score algorithm more challenging.

Nut containing products do not compare favourably with similar non-nut containing products

- To encourage healthier choices, healthier reformulation, and innovations the treatment of nuts in the current Nutri-Score algorithm needs to consider the wider food landscape
- Our assessment indicates that products containing nuts can have a worse Nutri-Score score and/or worse Nutri-Score letter compared to similar non-nut containing products. The system should allow for nut containing products to compare more fairly, and certainly as a minimum not portray them as less healthy.

## Nuts do not impact the Nutri-Score score positively, whilst rated as a positive food group

It would be reasonable to expect that addition of a positive food group would be seen to improve the nutritional quality of a product, and conversely addition of an ingredient scoring N points would decrease the nutritional quality of a product. This is the case for fruit and vegetables, and sugars where the nature of the net impact on the Nutri-Score score is either negative or positive respectively and in line with dietary guidance.

However, the current Nutri-Score system does not incentivise inclusion of nuts as a food group:

Impact of different food ingredients on net Nutri-Score score (41%, Product N points $\geq$ 11)					
	Tomato	Spinach	Brazil	Walnut	Sugar
<b>N Points</b>	0	0	9	5	10
<b>P points</b>	-1	-2	3	3	0
<b>Net Impact</b>	-1	-2	+6	+2	+10

This outcome is inconsistent with recognised dietary advice encouraging varied consumption and is not helpful for consumer or public health. All nut varieties and nut-containing products should be appropriately identifiable to consumers as healthful and/ or healthier choices to encourage higher, varied intakes.

If adding nuts results in the worsening of a product nutritional score, letter or indeed perception of nut containing products as less healthy than non-nut containing counterparts then this can serve as a dis-incentive to include nuts within products.

## Modelling an approach to more fairly calibrate and incentivise inclusion of nuts in products

We recognise that nutrient profiling is a tool that needs to account for the full food landscape, we are also mindful of the stated objectives and mandate of the COEN. We also recognise that any solution needs to be achievable, proportionate, practical in application and support dietary guidelines so enabling greater intakes but not rewarding excessive consumption.

In order to define how nuts could be more fairly calibrated within the Nutri-Score algorithm, we developed a test dataset and modelled several approaches. This was informed by technical product formulation expertise. Our test dataset included 100% plain nuts, salted nuts, nut bars, breakfast cereals, confectionary, and importantly products without nuts to ensure the impact across different food categories was evaluated. We wanted to ensure that any scenarios would both better recognise nuts as nutritional assets, whilst ensuring any impact on the score was controlled and commensurate with the quantity of nuts included.

Our initial assessments indicated that the naturally occurring saturated fat in nuts acts as a key driver of N points, and the source of variability of N point scoring across different types of nuts.

This suggests that the exclusion of naturally occurring saturated fat coming only from nuts in the recipe could represent a fitting, viable adjustment that would incentivise inclusion of different nut varieties in products. This results in some NutriScore score improvements, some NutriScore letter improvements and for non-nut containing products no change.

We are proposing this as an approach, based on our own analyses, but fully recognise that there could be other routes to achieve the same end objective. We develop below a simulated example to illustrate; however, our broader work is based on an assessment of over 70 real products, testing several different models.

### Exclusion of naturally occurring saturated fat coming from nuts – a modelled example.

As an example, a simulated nut bar containing 41% nuts that would score 15/ NutriScore D, has over 40% of its saturated fat coming from nut content alone. Exclusion of the saturated fat coming from the nuts alone from the total saturated fat content would reduce N points by 3.

In this instance, the NutriScore letter does not change, but the score improvement could create a further opportunity to reformulate to achieve a NutriScore C. Such a reformulation would otherwise not be possible as a reduction of 5 N points is not technically feasible, but reduction of 2 may be.

	N points	P points	Adjusted N Points	P points
Energy	6		6	
Sat Fat	8		5	
Total Sugars	3		3	
Sodium	4		4	
Total N Points	<b>21</b>		<b>18</b>	
FVN		1		1
Protein		5		5
Fibre		5		5
Total P Points		<b>6</b>		<b>6</b>
Nutri-Score Score/ Letter	15/ D		12/D	

The application of this approach is practically achievable as the saturated fat content of nuts is available through both ingredient specifications and publicly across EU food composition databases. It does not require a change to the algorithm, but rather specific instruction in the guidance text. Finally, and importantly this approach does not affect the score of products that do not contain nuts.

Ultimately, this would more fairly reflect the role of nuts and nut containing products in the diet, enabling consumers to identify more easily healthier choices. Improving nut intakes is eminently achievable at a population level but cannot rely on the status quo. Consumers diets, food preferences, and access to healthy foods such as nuts is increasingly important. Nut-containing products represent a realistic route to help bridge the gap between intakes and recommendations.

The openness of both the steering and scientific committees to receive inputs has created an opportunity for the Nutri-Score to better represent nuts and nut containing products and to incentivise inclusion of nuts in food products, enabling opportunities to improve public health.

We remain at your disposal to share the results of our assessments and technical perspectives,

General Mills

<sup>1</sup> Health effects of dietary risks in 195 countries, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017. GBD 2017 Diet Collaborators. Lancet 2019; 393: 1958-72