



nederlandse zuivel organisatie

The Dutch Dairy Association (NZO) has expressed its concern that the current NutriScore is not in line with Food-based dietary guidelines. Therefore, the NZO appreciates that an international scientific committee is working on this essential issue. In this document NZO would like to discuss the following issues and suggest solutions.

1. Distribution of cheeses and oils/fats in NutriScore
2. Unsubstantiated thresholds for milk drinks
3. The implementation of the algorithm for dairy drinks and other drinks

We would like to thank you for the consideration of our suggestions.

Mr. Oscar Meuffels, Managing director of NZO



## 1. Cheeses and oils/fats: distribution of cheeses in NutriScore

When it comes to dairy NutriScore is not in line with the food-based dietary guidelines for the product groups *cheese* and *oils/fats*. There are three major issues for these product groups that need to be solved:

1. There should be an equal distribution of the different cheeses and oils/fats among the whole NutriScore scale (A to E).
2. Products that are included in the dietary guidelines should score A or B in NutriScore. Currently, *e.g.*, most of these cheeses only score NutriScore D.
3. The current calculation method for NutriScore does not allow for product reformulations to result in better NutriScores.

In this note we will suggest a solution for all three issues without changing the basic principle of the algorithm of NutriScore.

### Background

NutriScore and the Australian Health Star Rating system (HSR)<sup>1</sup> have been based on the FSA-NS (FSA-Nutrient Score) and have a similar algorithm. However, the HSR uses a more extended nutrient scoring system, making HSR outcomes for cheeses and oils/fats more in line with food-based dietary guidelines. Below suggestions are given for more alignment of the NutriScore with food-based dietary guidelines. These suggestions are based on the HSR scoring system without making changes to the NutriScore algorithm and it comprises only a simple adjustment in the nutrient scoring system. To fully understand our suggestion, we will first explain the differences between the Health Star Rating and NutriScore. Subsequently, we will suggest changes in the nutrient scoring system for NutriScore and we will give some examples.

### Differences HSR versus NutriScore

- In the NutriScore scoring system there is a loss of sensitivity for saturated fats and sodium when compared to the HSR (see figure below). Within NutriScore the points for saturated fat and sodium are truncated to a maximum of 10 points, while in HSR for both nutrients the points increase until 30.
- NutriScore makes exemption for cheeses and fats/oils to bring them more in line with dietary guidelines (these exemptions have not been made in HSR):
  - o In NutriScore the protein content for cheeses is always counted, whether the N-point total is <11 points or not.
  - o In NutriScore the saturated fats content of oils/fats is related to total fats.These exemptions within NutriScore have not resulted in better alignment with dietary guidelines.

---

<sup>1</sup>The HSR is a world-wide standard used in the Access to Nutrition Index



- The HSR contains six food groups. The outcome of the algorithm is differently applied per product group in Health Star Rating outcomes. With other words: an outcome of e.g. 5 points in one food group can result in a different amount of HSR stars compared to another food group. In contrast, in NutriScore there are two food groups, namely solid foods and drinks.

The Nutri-Score uses the same Algorithm as HSR, based on FSA-NDS, but HSR outcomes are more in line with food based dietary guidelines

- Table of Nutri-Score is part of HSR table, only for first 10 rows, resulting in the loss of sensitivity for saturated fat and sodium

**HSR**

Table 2: HSR outcome points for Category 2 and 3D Foods

Health Star Rating points	Energy (kJ) per 100g or 100ml	Saturated fat (g) per 100g or 100ml	Sugar (g) per 100g or 100ml	Sodium (mg) per 100g or 100ml
5	≤ 130	≤ 0.0	≤ 0.0	≤ 0.0
4	≤ 150	≤ 0.0	≤ 0.0	≤ 0.0
3	≤ 170	≤ 0.0	≤ 0.0	≤ 0.0
2	≤ 190	≤ 0.0	≤ 0.0	≤ 0.0
1	≤ 210	≤ 0.0	≤ 0.0	≤ 0.0
0	≤ 230	≤ 0.0	≤ 0.0	≤ 0.0
-1	≤ 250	≤ 0.0	≤ 0.0	≤ 0.0
-2	≤ 270	≤ 0.0	≤ 0.0	≤ 0.0
-3	≤ 290	≤ 0.0	≤ 0.0	≤ 0.0
-4	≤ 310	≤ 0.0	≤ 0.0	≤ 0.0
-5	≤ 330	≤ 0.0	≤ 0.0	≤ 0.0
-6	≤ 350	≤ 0.0	≤ 0.0	≤ 0.0
-7	≤ 370	≤ 0.0	≤ 0.0	≤ 0.0
-8	≤ 390	≤ 0.0	≤ 0.0	≤ 0.0
-9	≤ 410	≤ 0.0	≤ 0.0	≤ 0.0
-10	≤ 430	≤ 0.0	≤ 0.0	≤ 0.0
-11	≤ 450	≤ 0.0	≤ 0.0	≤ 0.0
-12	≤ 470	≤ 0.0	≤ 0.0	≤ 0.0
-13	≤ 490	≤ 0.0	≤ 0.0	≤ 0.0
-14	≤ 510	≤ 0.0	≤ 0.0	≤ 0.0
-15	≤ 530	≤ 0.0	≤ 0.0	≤ 0.0
-16	≤ 550	≤ 0.0	≤ 0.0	≤ 0.0
-17	≤ 570	≤ 0.0	≤ 0.0	≤ 0.0
-18	≤ 590	≤ 0.0	≤ 0.0	≤ 0.0
-19	≤ 610	≤ 0.0	≤ 0.0	≤ 0.0
-20	≤ 630	≤ 0.0	≤ 0.0	≤ 0.0
-21	≤ 650	≤ 0.0	≤ 0.0	≤ 0.0
-22	≤ 670	≤ 0.0	≤ 0.0	≤ 0.0
-23	≤ 690	≤ 0.0	≤ 0.0	≤ 0.0
-24	≤ 710	≤ 0.0	≤ 0.0	≤ 0.0
-25	≤ 730	≤ 0.0	≤ 0.0	≤ 0.0
-26	≤ 750	≤ 0.0	≤ 0.0	≤ 0.0
-27	≤ 770	≤ 0.0	≤ 0.0	≤ 0.0
-28	≤ 790	≤ 0.0	≤ 0.0	≤ 0.0
-29	≤ 810	≤ 0.0	≤ 0.0	≤ 0.0
-30	≤ 830	≤ 0.0	≤ 0.0	≤ 0.0

**Nutri-Score**

Scale publique France - "Nutri-Score" Logo usage regulation

Table 1: Points attributed to each of the elements of the negative N component

Points	Energy density (kJ/100g)	Saturated fats (g/100g)	Simple sugars (g/100g)	Sodium <sup>1</sup> (mg/100g)
0	≤ 335	≤ 1	≤ 4.5	≤ 90
1	> 335	≤ 1	> 4.5	> 90
2	> 670	> 2	> 9	> 180
3	> 1005	> 3	> 13.5	> 270
4	> 1340	> 4	> 18	> 360
5	> 1675	> 5	> 22.5	> 450
6	> 2010	> 6	> 27	> 540
7	> 2345	> 7	> 31	> 630
8	> 2680	> 8	> 36	> 720
9	> 3015	> 9	> 40	> 810
10	> 3350	> 10	> 45	> 900

<sup>1</sup> the sodium content corresponds to the salt content mentioned in the mandatory statement divided by 2.5.

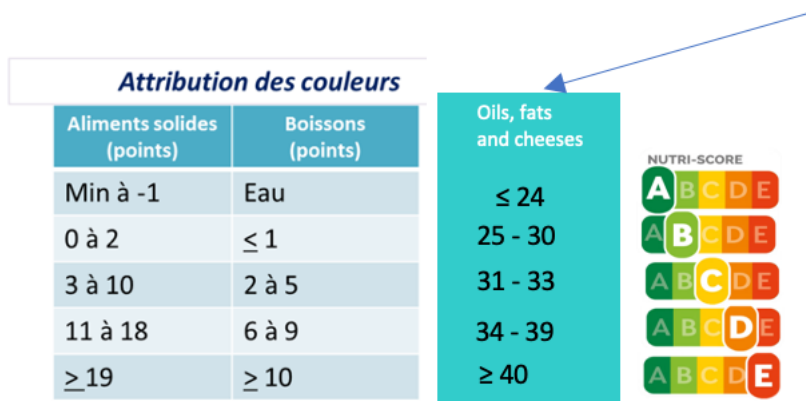
Solution: How to bring NutriScore outcomes in line with food-based dietary guidelines for the product groups cheeses and oils/fats.

1. For both product groups the NutriScore table should be expanded with rows 11-30 of the HSR (see figure above).
2. The exemptions made for cheeses (always P points) and oils/fats (percentage saturated fats/ total fats instead of saturated fats per 100 gram/ml) in NutriScore should be withdrawn.
3. Without changing NutriScore's algorithm one column 'cheeses and oils/fats' should be added to the points allocation table of NutriScore (see figure below). This allocation table is based on the HSR allocation table 7 category 3D.



Table 7: HSR scores by category, with final Health Star Rating

HSR rating	Cat. 1	Cat. 1D	Cat. 2	Cat. 2D	Cat. 3	Cat. 3D
5	Water	≤-2	Eligible fruits and vegetables ≤-11	≤-2	≤13	≤24
4.5	Unsweetened Flavoured water	-1	-10 – -7	-1 – 0	14 – 16	25 – 26
4	≤0	0	-6 – -2	1 – 2	17 – 20	27 – 28
3.5	1	1	-1 – 2	3	21 – 23	29 – 30
3	2 – 3	2	3 – 6	4 – 5	24 – 27	31
2.5	4 – 5	3	7 – 11	6 – 7	28 – 30	32 – 33
2	6 – 7	4	12 – 15	8	31 – 34	34 – 35
1.5	8 – 9	5	16 – 20	9 – 10	35 – 37	36 – 37
1	10 – 11	6	21 – 24	11 – 12	38 – 41	38 – 39
0.5	≥12	≥7	≥25	≥13	≥42	≥40



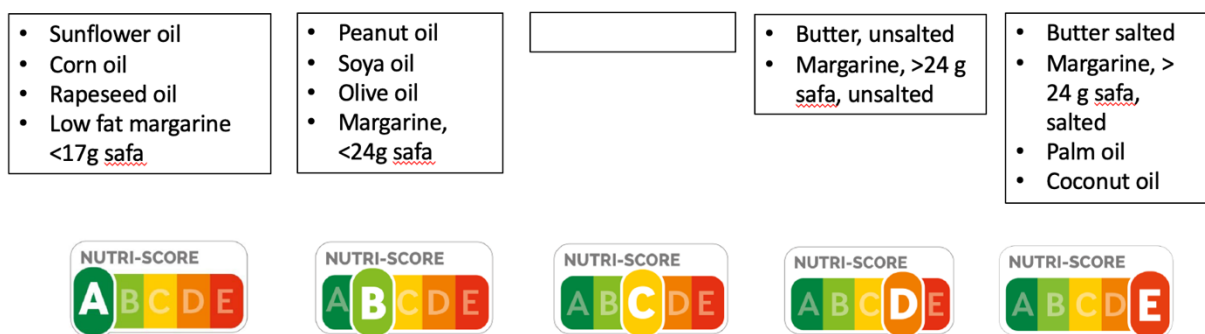
If the above-mentioned method is applied cheeses will score as shown in the figure below. In these examples it is shown that cheeses that are advised in the Dutch food-based dietary guidelines (Wheel of Five/Schijf Van Vijf) Mozzarella Cheese and low fat 30+ cheese score NutriScore A. High fat cheeses score accordingly.

- |   |  |   |  |   |
|---|--|---|--|---|
| <ul style="list-style-type: none"> <li>• Mozzarella</li> <li>• Gouda 10+, 20+, 30+, lower in salt</li> <li>• Camembert 30+</li> </ul> | <ul style="list-style-type: none"> <li>• Emmenthaler</li> <li>• Gouda 45+</li> <li>• Brie 50+</li> </ul> | <ul style="list-style-type: none"> <li>• Emmenthaler</li> <li>• Edammer 40+</li> <li>• Gouda 48+, lower in salt</li> <li>• Parmesan</li> <li>• Gruyere</li> </ul> | <ul style="list-style-type: none"> <li>• Cheddar</li> <li>• Gouda 48+,old</li> <li>• Kernhemmer 60+</li> </ul> | <ul style="list-style-type: none"> <li>• Gorgonzola</li> <li>• Roquefort</li> </ul> |
|---|--|---|--|---|





If the above-mentioned method is applied to oils/fats they will score as shown in the figure below. We have given examples of oils/fats per NutriScore. With these examples it is shown that oils which are advised in the Dutch food-based dietary guidelines (Wheel of Five/Schijf Van Vijf) sunflower oil and low-fat margarine score NutriScore A. Olive oil scores a Nutriscore B. Oils/fats with high saturated fat content score D or E.



With the above-described method the outcomes for cheeses and oils/fats are brought in line with food-based dietary guidelines in the Netherlands and Europe.

- Cheeses have got a more representative distribution among the NutriScore outcomes. And the A and B scores are in line with food-based dietary guidelines that promote lower-fat cheeses.
- Oils/fats have got a more representative distribution among the NutriScore outcomes. And the A and B scores are in line with food-based dietary guidelines that promote lower saturated fat options.
- With these changes NutriScore will be a better and practical incentive for product reformulation by the food industry.
- Extra point: Olive oil has got a NutriScore of B.

We hope that this solution will be taken into consideration by the scientific committee. We are positive that the above-mentioned calculation method for NutriScore will result in more support from the dairy industry for the implementation of NutriScore.

Appendix 1: Presentation with figures in powerpoint



## **2. Unsubstantiated threshold of milk drinks**

The NutriScore Q&A, which is aimed at facilitating the implementation of the system, provides a guidance that is not scientifically substantiated. This has led to a distortion of the intended objective of the scheme, thereby potentially misleading consumers with regards to the nutritional values of drinkable dairy products. The problem of product classifications within NutriScore is due to an arbitrary and scientifically unsubstantiated milk content in milk drinks

Under NutriScore, fermented milk drinks (such as Yakult, but also traditional dairy products such as Ayran and Lassi) are classified as 'drinks' instead of 'food', due to an arbitrarily determined milk content (80%) stated in the Nutri-Score FAQ intended to clarify the distinction between 'drinks' and 'foods'. This classification results in disproportionately negative scores compared to products in the same category, which are classified as 'foods'. This leads to competitive disadvantages and is misleading consumers. To avoid an unfair playing field, the product category of fermented milk (drinks) as defined in the 'Codex Standard for Fermented Milks' should be integrated into the definition of dairy products in the NutriScore FAQ, so that these products are considered as 'foods' for the calculation of the Nutri-Score.

[Appendix 2: Scientific position paper Yakult 2021](#)



### 3. The implementation of the algorithm in dairy drinks and other drinks

The NutriScore algorithm for beverages differs from the calculation for solid foods. The thresholds for according negative points for energy and sugar are lower for beverages. In order to take the nutritional value better into account (especially proteins and calcium) the NutriScore for drinkable milk products is calculated with the algorithm for solid products instead of beverages. A content of 80% milk is put forward in the NutriScore FAQ as a threshold for drinkable milk products to use the algorithm for solid products. Furthermore, according to the Nutri-score FAQ the NutriScore for plant-based drinks should also be calculated with the algorithm for solid products. However, it is unclear on which base it was decided that plant-based drinks would also benefit from the exclusion of the beverage category, and moreover not to subject them to a similar threshold (as provided for the milk products), especially since plant-based drinks do not naturally contain calcium or lactose and most of them do not meet the protein content nor quality of milk. From this point of view:

- A threshold on at least calcium and protein content seems appropriate.
- An adjustment on natural and added sugars seems appropriate.

Or, alternatively,

- Plant-based drinks are considered as drinks.