verbraucherzentrale

STILL TOO FEW FOODS WITH NUTRI-SCORE IN RETAIL

Market check by the German consumer organisations on voluntary nutritional labelling

MARKET CHECK NUTRI-SCORE

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1 OVERVIEW

In the spring of 2022, the German consumer organisations collected data on 1451 foods from the product groups breads and rolls, pizzas, milk and dairy drinks, plant-based drinks, and cereals. The same data had been collected in the previous year for a pre-check, in order to document changes in nutrition values and the Nutri-Score over one year.

General:

- At the time the market check was carried out, 579 of the 1451 products inspected (40 percent) bore **a Nutri-Score label**, 102 more products than in the year before (477 products = 33 percent).
- The **largest share** of labelled foods was in the pizza product group at 70 percent, with 49 percent for plant-based drinks and 44 percent for breads and rolls. Bringing up the rear in terms of Nutri-Score labelling were cereals and dairy drinks, each with 28 percent.
- Only 13 products (3 percent) of the 477 foods labelled with the Nutri-Score in the pre-check had a **better Nutri-Score** in the market check, while two had a **worse Nutri-Score**. The German consumer organisations could not reliably reconstruct all changes.
- For 119 of the 579 Nutri-Score labelled products in the market check (21 percent), the consumer organisations could **not verify** the Nutri-Score given by the manufacturers due to the unavailability of the data necessary for the exact calculation. In most cases, the missing information was the dietary fiber content.
- 17 of the 579 Nutri-Score labelled products in the market check (3 percent) were **labelled incorrectly** in the view of the German consumer organisations. The consumer organisations requested explanations from the manufacturers. The manufacturers' responses are summarized in section 5.8.
- In 314 of the 1451 products surveyed in the market check (22 percent), the nutrition values changed between the pre-check and the market check. For 140 products, the **nutrient composition was better** (45 percent); for 56 products, **the nutrient composition was worse** (18 percent); and for 118 products, the nutrient composition remained the same (38 percent). The Nutri-Score itself does not necessarily change because of a change in nutrient composition. The decisive factor for evaluating the nutrient composition is the nutrition value score used for calculating the Nutri-Score. In our assessment, a decreased nutrition value score means a better nutrient composition, and an increased nutrition value score means a worse nutrient composition.

Breads and rolls:

- 227 of the 514 breads and rolls (44 percent) included in the market check bore a **Nutri-Score label**. 157 had Nutri-Score A, 57 B, 11 C and one product each had D and E. 18 more products were labelled than in the pre-check.
- The **nutrition values** of 52 breads and rolls (10 percent) changed from the pre-check to the market check. 19 of these products had an improved nutrient composition in the market check, and one even had a better Nutri-Score. 16 of the breads and rolls examined had a worse nutrient composition.
- On average, a better Nutri-Score on breads and rolls meant that the **salt content** decreased and the **fiber content** increased. For example, the average salt content in products with Nutri-Score A, 1.10 grams per 100 grams, increased to 1.22 grams (B), to 1.68 grams (C). The average fiber content in breads and rolls with Nutri-Score A, 7.3 grams per 100 grams, fell to 5.7 grams with a score of B. Between the pre-check and the market check, the average salt content across all products remained constant at 1.1 grams per 100 grams.

Pizzas:

- 118 of the 169 pizzas (70 percent) tested in the market check were labelled with a **Nutri-Score**, 44 more than in the pre-check. Five products bore the Nutri-Score A, 47 B, 61 C, and five D.
- The **nutrition values** of 88 pizzas (52 percent) were different in the pre-check and the market check. 49 of these products had a better nutrient composition in the market check; three of these also had a better Nutri-Score. 14 of the pizzas checked had a worse nutrient composition.
- On average, the poorer the Nutri-Score, the higher the **salt content** and **saturated fat content**. The average salt content of pizzas with Nutri Score D was almost 40 percent higher than that of pizzas with A. The average saturated fat content of products with Nutri Score D was four times higher than that of pizzas with A.

Milk and dairy drinks:

- 75 of 268 milk and dairy drinks (28 percent) tested in the market check were labelled with a **Nutri-Score**; 72 of these 75 products (96 percent) had a Nutri-Score of A or B.
- In 63 of the milk and dairy drinks (24 percent), the **nutrition values** were different in the pre-check and the market check. 15 of these products had a better nutrient composition in the market check; one of them also had a better Nutri-Score. Nine of the milk and dairy drinks tested had a worse nutrient composition.
- **Milk content**, rather than the nutrition values, is the decisive factor in determining whether a dairy drink received a Nutri-Score D or E. If the milk content is below 80 percent, Santé publique France specifies that the Nutri-Score must be calculated using the stricter beverage formula. For products with a milk content above 80 percent, the general formula is used, resulting in a better Nutri-Score.[1]

Plant-based drinks:

- 48 of 98 plant-based drinks (49 percent) in the market check were labelled with a **Nutri-Score**; 46 of them (96 percent) had either Nutri-Score A or B.
- The **nutrition values** of 18 plant-based drinks (18 percent) were different in the pre-check and the market check. Five of these products improved their nutrient composition; one of them also had a better Nutri-Score. Three had a worse nutrient composition.

Cereals:

- 111 of 402 cereals (28 percent) in the market check were labelled with a **Nutri-Score**. 45 products had a score of A, 21 B, 38 C and seven D.
- The **nutrition values** of 93 cereals (23 percent) were different in the pre-check and the market check. 52 of these products had an improved nutrient composition; of these, three had a better Nutri-Score. 14 had a worse nutrient composition.
- Products with Nutri-Score D had a 6x higher average **saturated fat content** compared to products with Nutri-Score A. Likewise, the average sugar content increased from just over 11 grams per 100 grams (A) to almost 25 grams (D). A good Nutri-Score does not, however, guarantee low sugar content in cereals. Individual A-scored products contained up to 25 grams of sugar per 100 grams.
- The German consumer organisations also examined 63 **cereals with child-targeted marketing**. At an average of 23 grams of sugar per 100 grams, their sugar content was significantly higher than products not marketed for children. Of the 10 cereal products with the highest sugar content, eight were marketed for children. In contrast, among the 100 cereals with the lowest sugar content were only two products were marketed for children.

Further results:

- When collecting the data in the pre-check and the market check, the German consumer organisations identified **various violations of the Nutri-Score Usage Regulation**.
- A survey of the **food safety agencies** in 14 of the 16 German federal states showed that only five of the states check the correct calculation of the Nutri-Score. Regular audits are carried out only in three federal states. In the view of the German consumer organisations, this does not ensure the necessary monitoring of the Nutri-Score.

2 BACKGROUND

Too many calories, too much salt, sugar and saturated fatty acids: an unhealthy diet contributes to the development of certain diseases, including and above all diabetes, obesity and cardiovascular diseases.[2] To a large extent, a lack of nutritional literacy and an overwhelming variety of products lie behind unhealthy eating habits.[3] In order to make it easier to choose healthier foods when purchasing, Germany approved the Nutri-Score as a guidance tool in 2020. This colored nutrition label was developed by independent scientists in France. Surveys have shown that the Nutri-Score is well understood by consumers and can improve their food choices.[4] Consumer advocacy groups therefore support the Nutri-Score as an extended nutrition label on food products.

The legal background

Since 2016, food manufacturers have been required to indicate the following nutrition values on packaged foods: calorific value, fat, saturated fatty acids, carbohydrates, sugar, protein, and salt. This mandatory information is regulated by EU Regulation No 1169/2011 on the provision of food information to consumers (INCO).

In addition, this regulation allows food manufacturers to voluntarily present calorific value and nutrient amounts in other forms, for example as pictures or symbols.[5] These representations are called "extended nutrition labels" and must meet certain requirements. Each member state of the EU can recommend certain forms for extended nutrition labelling. The Nutri-Score is one such form.

In order to allow manufacturers to use the Nutri-Score in Germany with legal certainty, the German government has amended the German Food Information Implementation Ordinance. Section 4a was added, which allows the use of the Nutri-Score.[6] The section is exclusively about **voluntary** use of the Nutri-Score extended nutrition labelling. The regulation was given to the EU Commission for notification in 2020, and the Commission raised no objections. Following subsequent approval by the Bundesrat, the regulation entered into force in November 2020 in a revised form. Only the EU Commission can initiate an obligation to indicate the Nutri-Score. If it did so, the INCO would have to be amended.

In France, 875 manufacturers are already using the Nutri-Score (as of January 2022),[7] and in Germany, 610 manufacturers have decided to use it (as of 25 October 2022).[8]

The Nutri-Score and its calculation

The Nutri-Score is a five-point scale from a dark green A to a red E. The dark green A indicates the best rating, the red E the worst. The colored letters are intended to enable consumers to easily classify and compare the nutrient composition of foods. An algorithm calculates a nutritional score based on the nutrient content of the ingredients, and the result corresponds to the letters. Each ingredient is given a specific number of points depending on its amount in the food. Ingredients whose excessive consumption can have a negative impact on health receive positive points: calorific value, sugar, saturated fat and salt. Those that can have a positive influence on health receive negative points: fiber, protein, fruits and vegetables, nuts, legumes and selected cooking oils. For each food, the calculation results in a value between -15 and 40 points. The lower the value, the better the Nutri-Score.[8] Illustration 1 shows how the nutritional score calculated with the general formula corresponds to the Nutri-Score.

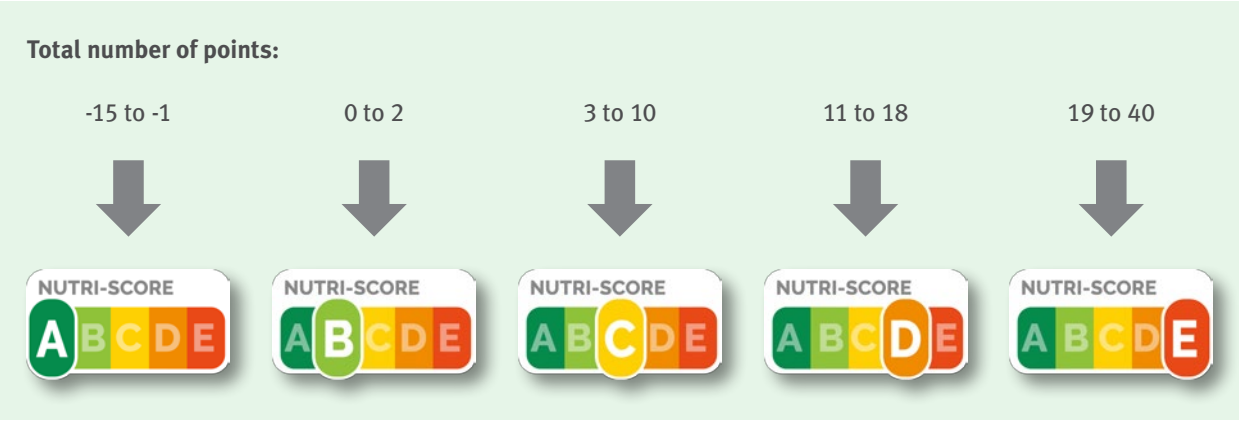

Illustration 1: *Overview of nutritional scores for each Nutri-Score (general case)*

Since the Nutri-Score refers to 100 grams or 100 milliliters of a food, products within a product group can be compared at a glance.

Food manufacturers wishing to use the Nutri-Score must register with the licensor Santé publique France, and must calculate the score for their products themselves. Manufacturers may not label only selected products with the Nutri-Score, but rather must use it on all products within a brand, and must commit to labelling the packaging within 36 months of registration.[9]

The areas of application of the Nutri-Score

Especially in the case of processed products with many ingredients, it is difficult for consumers to assess the composition of the food. The Nutri-Score can provide an initial and quick orientation for such products: frozen pizza or pre-packaged muesli mixes, for example.

The Nutri-Score can be used on almost all foods that carry mandatory nutrition labelling. Exceptions are special foods for children from 0 to 3 years, for athletes and for people with severe obesity. The Nutri-Score is not applicable to these types of products. Foods that are not required to carry nutrition labels can also be labelled with the Nutri-Score if the manufacturer voluntarily provides nutrition values on the packaging. Packaged meat, water, or tea are examples of this group. The Nutri-Score is not applicable for food supplements.[1]

Comparing products using the Nutri-Score

The Nutri-Score allows consumers to compare the nutrient composition of foods from the same product group at a glance. The Nutri-Score is not suitable for comparing completely different products - for example, a pizza with a cereal. Instead, the color-coded Nutri-Score can be used to quickly decide whether the salami pizza or the tuna pizza has a better nutrient composition. It is also possible to compare different foods for the same meal. A nut muesli and a croissant can be compared, for example, as both foods are often eaten for breakfast.

Limits of the Nutri-Score

The Nutri-Score does not provide information about **additives** such as colorants, preservatives, flavor enhancers or sweeteners. These substances are not taken into consideration for the calculation. For this reason, beverages containing sweeteners often receive a good Nutri-Score. **Flavorings** are also not a component of the scoring, thus anyone wanting to avoid them must consult the ingredient list. The **degree of processing** of a food is also not taken into account. Highly processed foods such as convenience foods, soft drinks, sweets, frozen meals and instant products tend to have a negative impact on health, according to studies. However, depending on their composition, they can still receive a good Nutri-Score.

3 WHY A MARKET CHECK?

The Nutri-Score can make it easier for consumers to compare products' nutritional value at a glance. However, this is only possible if numerous foods in a product group are labelled with a Nutri-Score. In this market check, the German consumer organisations surveyed products in five different product groups to see how many foods were labelled with a Nutri-Score and which rating (from A to E) each product was given.

The 2022 market check began with a pre-check in 2021, which collected product data for comparison to the data one year later. The goal of the 2022 market check was to answer the following questions:

1. Are more products labelled with the Nutri-Score in 2022 than in 2021?
2. Did the Nutri-Score rating of labelled products change?
3. Did the amount of any nutrient used in calculating the Nutri-Score change? If so, how did the change in nutrient content affect the nutrient composition?

4 HOW WE PROCEEDED

4.1 Data collected in the market check

Between March and September 2021, we collected data on the nutrition values and Nutri-Score ratings of 1562 products. In March to May 2022, we rechecked the same products. Because 111 of the products were no longer available in 2022, the sample was reduced to 1451 products. The purpose of collecting the product data twice was to identify changes.

Data was collected on:
- 514 breads and rolls
- 169 pizzas
- 268 milk and dairy drinks
- 98 plant-based drinks
- 402 cereals

These product groups were selected because of their frequent consumption. In addition, regional sampling by various German consumer organisations showed that many products in these product groups were labelled with the Nutri-Score.

We collected the following data on all products:
- manufacturer, brand, and product name
- nutrition values
- Nutri-Score rating
- ingredients

Where possible, we collected the data online using the websites of the manufacturers and of the following retailers:
- REWE Onlineshop: (https://shop.rewe.de/)
- EDEKA house brands (https://www.edeka.de/unsere-marken/index.jsp)
- Kaufland.de (https://www.kaufland.de/).

The data for the products of the discounters ALDI Nord, ALDI Süd, LIDL, Netto, Netto Markendiscount and PENNY were not available online and were therefore collected from their stores. The sample consists of products that were available throughout Germany during the survey period. As this is a random sample, further products may be found in stores that were not included in the market check.

4.2 Calculation and recording of the Nutri-Score

The Nutri-Score was calculated for all products with the data available in the nutrition value table and the list of ingredients. The calculation table provided by the German Federal Ministry of Food and Agriculture (BMEL) on the internet was used for the calculation.[10]

If the manufacturer labeled a product with a Nutri-Score, the score was recorded and compared with the Nutri-Score calculated by the German consumer organisations.

The German consumer organisations could not accurately determine the Nutri-Score for every product surveyed. For many products, the quantities of fruit, vegetables or nuts contained or - much more frequently - the fiber content were not specified. This data is necessary for calculating the Nutri-Score, but manufacturers are not required to indicate it on their products. Due to the missing data, there were quite a few cases of discrepancies between the Nutri-Score given by the manufacturer and the German consumer organisations calculations.

If the dietary fiber content was not listed, we checked whether the manufacturer's stated Nutri-Score was mathematically achievable using the maximum possible number of points for dietary fiber. If this was the case, the food was categorized as "Nutri-Score not verifiable." If not, the food was considered to be mislabeled.

Detailed look at individual nutrition values
In each product group, we took a closer look at the nutrition values used in calculating the Nutri-Score. In the case of breads and rolls, these were salt and dietary fiber, while in the case of cereals they were sugar, saturated fatty acids and dietary fiber. We calculated average values and determined the range of the amount of each nutrition value.

4.3 Inquiries with manufacturers

For some products, the Nutri-Score we calculated did not match the Nutri-Score on the packaging. If all the necessary data for the calculation was listed, we asked the manufacturers for an explanation of the deviating Nutri-Score.

If the dietary fiber content was not specified, we used the maximum number of points for dietary fiber to see if that achieved the manufacturer's Nutri-Score. If not, we asked the manufacturers for an explanation.

4.4 Comparison of the 2022 market check with the 2021 pre-check

We compared both the Nutri-Score ratings and the nutrition data used in the calculation with those from the pre-check. The nutrition data was considered changed if any of the information was different from that in the pre-check. We did not evaluate the size of the change. A change in the nutrition values could be, for example, that the fiber content was now included, or that decimal numbers were rounded differently.

To assess the nutrient composition, we compared each product's number of points according to the Nutri-Score calculation. From our point of view, it was not sufficient to consider only the change in the Nutri-Score rating, since each rating represents a range of points. For example, a C-rating represents a nutrition value score of anything between 3 and 10 (general case). So it may be that the Nutri-Score rating for a product did not change even though the nutrition value score decreased or increased by five points. We judged a lowered nutrition value score to be an indication of an improved nutrient composition, while a higher nutrition value score indicates a worsened nutrient composition.

5 OUR RESULTS

5.1 General

Of the 1451 products surveyed in the pre-check, a total of 477 products (33 percent) were labelled with a Nutri-Score. In the market check, this figure rose to 579 products (40 percent), an increase of 102 products. Two products labelled with a Nutri-Score in the pre-check no longer had one in the market check. The diagrams show the differences between the pre-check and the market check. In all product groups, the number of foods with a Nutri-Score increased and those without a Nutri-Score decreased (Illustration 2).

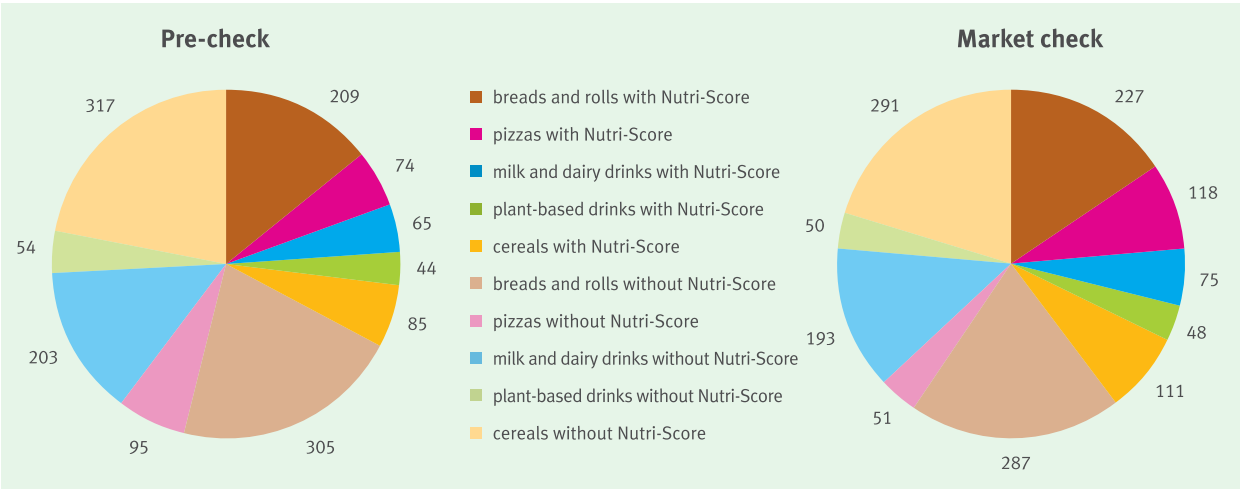

Illustration 2: *Number of products (1451 total) with and without Nutri-Score*

The product group with the highest proportion of Nutri-Score labelling was pizzas, at 70 percent. There was also a good chance of buying a product with a Nutri-Score in the group of plant-based drinks, with 49 percent of the products in the market check bearing a Nutri-Score. In breads and rolls, 44 percent were labelled with a Nutri-Score. In dairy drinks and cereals, the Nutri-Score was less common, with only 28 percent of products in both product groups bearing it (Illustration 3).

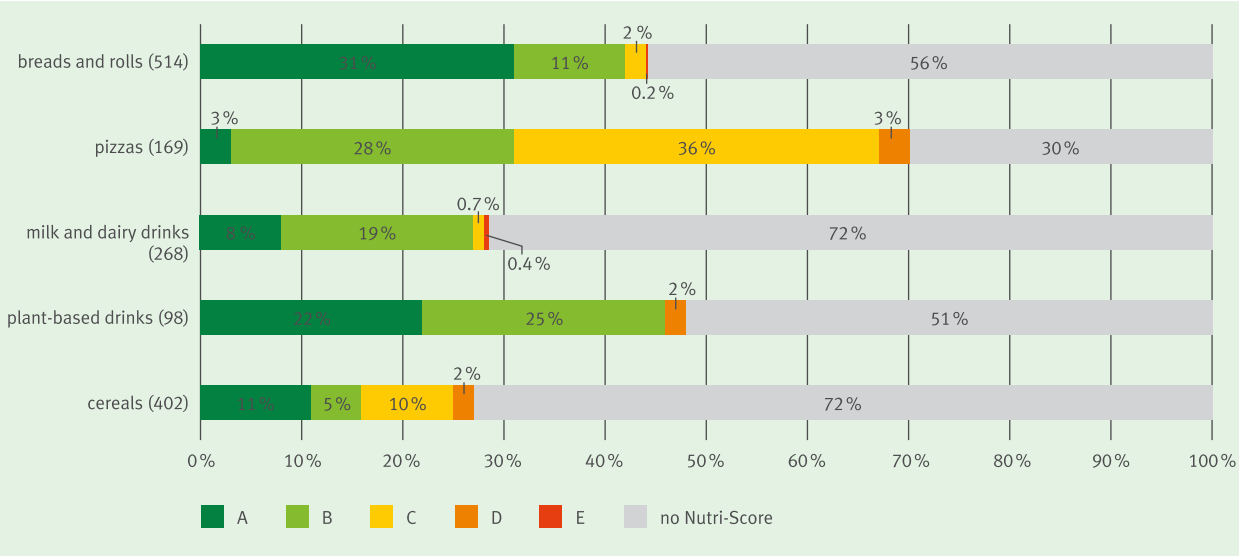

Illustration 3: *Products in the market check with and without Nutri-Score, per product group in percent (values above 1 percent rounded to whole numbers)*

In the period between the pre-check and the market check, the Nutri-Score calculated by the manufacturer improved on only a few products: 13 of 477 foods (3 percent) bore a better Nutri-Score. For four products, we could not duplicate the calculation leading to the change. One product from the cereals group had the same nutrition information as in the pre-check; one product from the dairy drinks group and two from the cereals group had the same nutrient composition despite changed nutrition values and thus arithmetically the same Nutri-Score.

Two foods had a worse Nutri-Score in the market check, both of which were, according to the available data, incorrectly labelled in the pre-check. One bread had unchanged nutrition information, but was correctly labelled in the market check. One pizza, with the same nutrition information in both instances, was labelled in both the pre-check and the market check with a better Nutri-Score than was, in our opinion, justified.

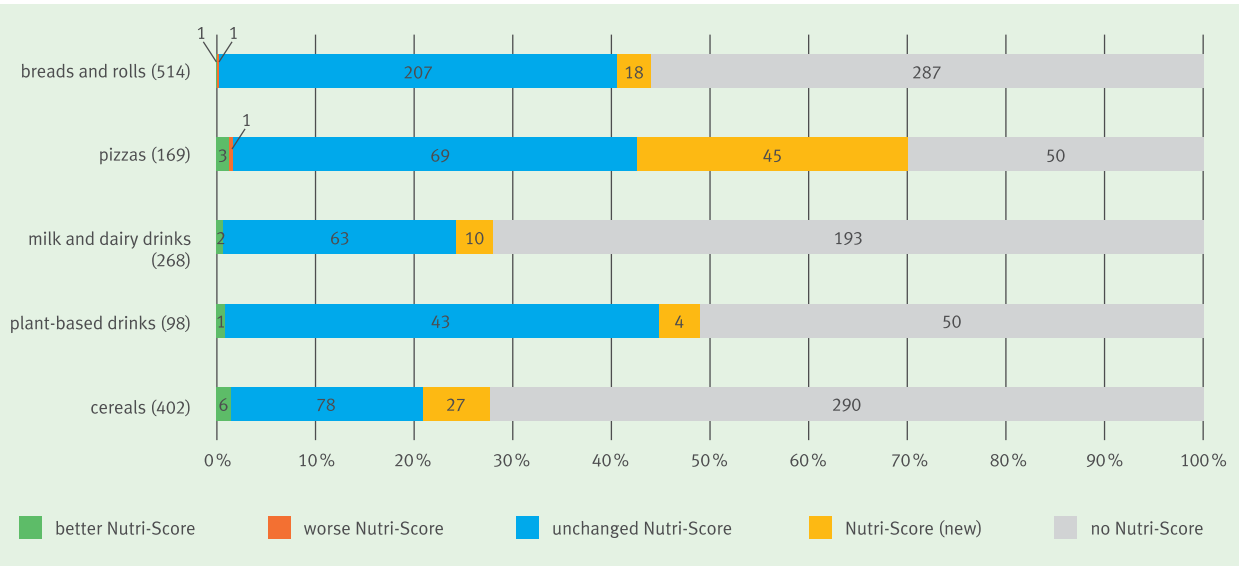

Illustration 4: *Number of products with changed, unchanged, new, or no Nutri-Score in the market check, compared to the pre-check (scaled to 100 percent)*

For 314 products, the nutrition values were different in the market check than they were in the pre-check, with varying degrees of impact on nutrient composition. The changed nutrition values resulted in a better nutrient composition for 140 products (45 percent) and a worse nutrient composition for 56 (18 percent). For 118 products, the nutrition value changes had no effect on nutrient composition.

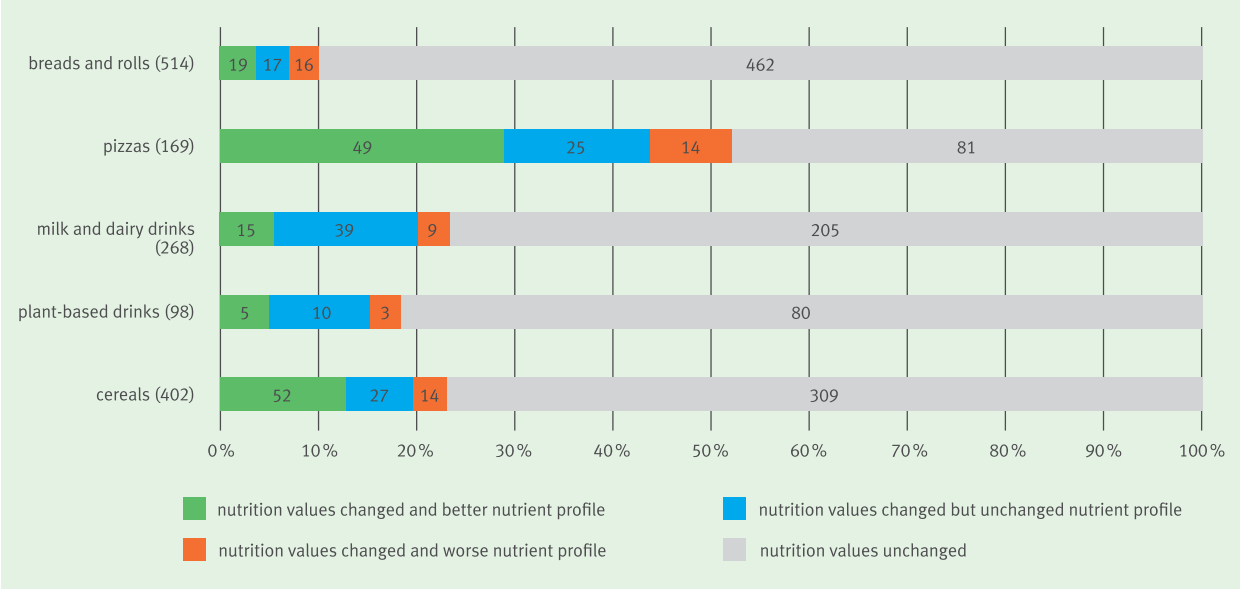

Illustration 5: *Number of products in the market check with changed and unchanged nutrition values compared to the pre-check (scaled to 100 percent)*

In the product groups, we were able to observe changes with varying frequency. The frozen pizza product group had not only the largest proportion of products with a Nutri-Score, but there was also a large movement in the nutrition values: 52 percent of the products showed a change in nutrition values between the pre-check and the market check. There was much less change in the other categories: 24 percent of dairy drinks, 23 percent of cereals, 18 percent of plant-based drinks and only 10 percent of breads and rolls showed changed nutrition values.

5.2 Breads and rolls

5.2.1 Change in the number of products with a Nutri-Score
Data was collected for 514 breads and rolls. Of these, 209 products (41 percent) were labelled with a Nutri-Score in the pre-check.

Slight changes were observed. In the market check, there were 227 products with a Nutri-Score (44 percent), 18 more than in the pre-check. In the pre-check, 142 products had a Nutri-Score of A as opposed to 157 in the market check; 54 Bs in the pre-check rose to 57 in the market check. For 71 of the labelled products, the manufacturer's Nutri-Score could not be reconstructed with the data available, and for three others the German consumer organisations judged it to be calculated incorrectly (Illustration 6).

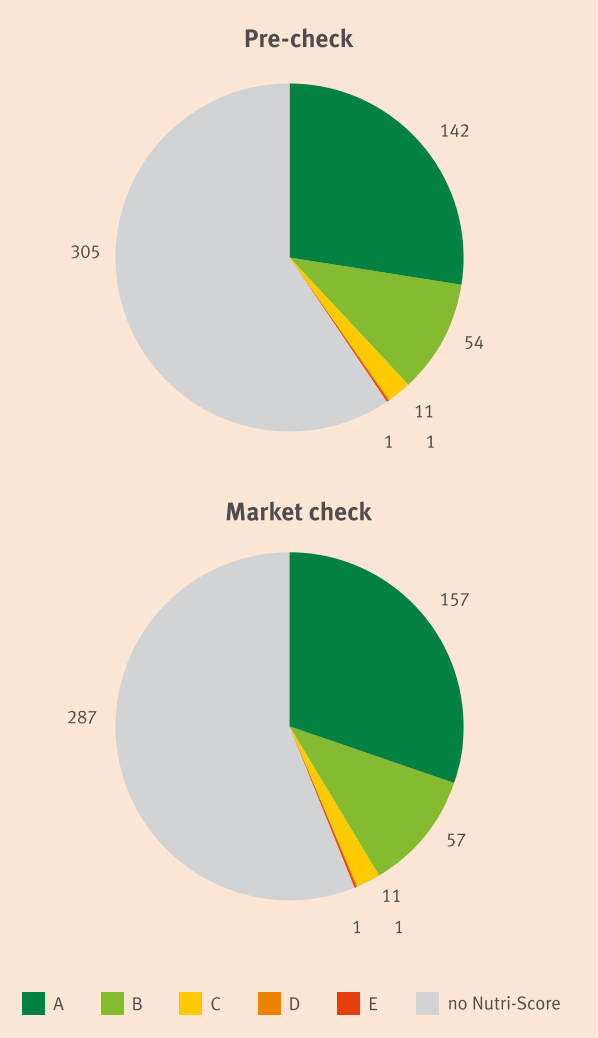

Illustration 6: *Number of breads and rolls (514) with and without Nutri-Score*

5.2.2 Change in nutrition values and nutrient composition
In 10 percent of the breads and rolls surveyed, nutrition values differed between the market check and the pre-check (52 products). Changed nutrition values led equally often to a better, worse, or unchanged nutrient composition (Illustration 7).

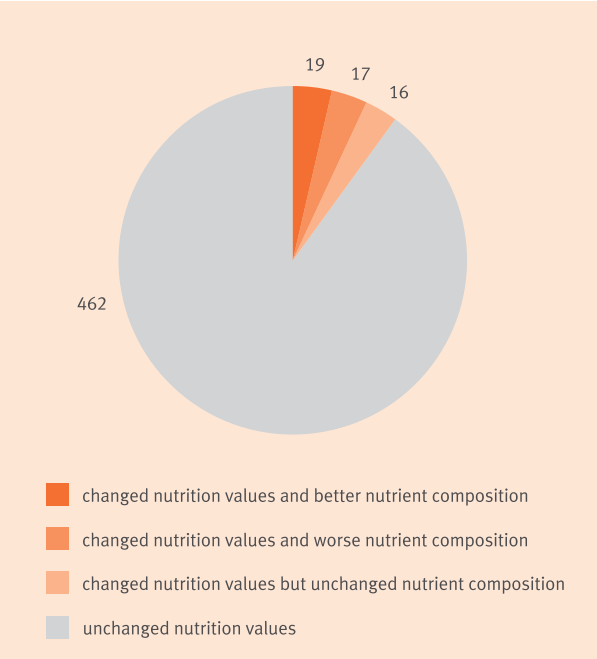

Illustration 7: *Number of breads and rolls (514) with changed and unchanged nutrition values*

We took a closer look at individual nutrition values that are particularly important for the calculation of the Nutri-Score for bread and rolls. Because the selected nutrition values varied greatly between the products surveyed, the number of points calculated for the products' Nutri-Scores naturally also varied greatly.

Salt

For all breads and rolls in the market check, the salt content ranged from 0.6 to 3.5 grams per 100 grams. This variation was reflected in the number of points for salt content calculated for the Nutri-Score: between two and the maximum of 10 points.

For 25 of the breads and rolls (5 percent), the salt content was lower in the market check than in the pre-check, for 13 (3 percent) it was higher. For the remaining 476 products, the salt content remained the same.

The mean value of the salt content across all the breads and rolls surveyed in both the pre-check and the market check was 1.1 grams per 100 grams. The worse the Nutri-Score, the higher the mean salt content tended to be. As only one product each had a Nutri-Score D or E, they were not included in the following table (Table 1).

As part of the German government's reduction strategy, the average salt content in packaged baked goods is to be 1.1 grams per 100 grams by 2025.[2] The market check sample of breads and rolls met this target. In 222 of the 514 breads (43 percent), the salt content was above 1.1 grams of salt per 100 grams.

Nutri-Score	Number of products	Mean salt content (g/100 g)	Minimum – Maximum (g/100 g)
A	157	1.1	0.8 – 1.6
B	57	1.2	1.0 – 1.7
C	11	1.7	1.1 – 3.5

Table 1: *Salt content in breads and rolls with a Nutri-Score (not included: products with Nutri-Score D and E)*

Nutri-Score	Number of products	Average dietary fiber content (g/100 g)	Minimum – Maximum (g/100 g)
A	118	7.3	3.0 – 15.7
B	29	5.7	2.4 – 11.5

Table 2: *Dietary fiber content of breads and rolls with Nutri-Score (only products with dietary fiber declaration)*

Dietary fiber

The dietary fiber content was specified for 310 products, but was not given on the remaining 204 (40 percent). For 71 of these products, the missing dietary fiber content data meant that we were unable to reconstruct the manufacturer's Nutri-Score calculation. In purely mathematical terms, the manufacturer's Nutri-Score would be possible if the maximum possible number of points for dietary fiber were used for the calculation.

The Nutri-Score of three other products was, in our view, calculated incorrectly by the manufacturer, as their calculation would not be achievable with the available data, even with an assumed maximum number of points for dietary fiber (more on this in Chapter 5.8).

For the products for which manufacturers voluntarily indicated the dietary fiber content, we observed the following tendency: the better the Nutri-Score, the higher the average dietary fiber content. On average, the fiber content of breads and rolls with Nutri-Score A was 28 percent higher than products with Nutri-Score B. However, there was a wide variation in both categories. None of the breads and rolls with Nutri-Score C, D or E listed the fiber content on the packaging.

The dietary fiber content in products surveyed in the market check ranged from 2.1 to 18.7 grams per 100 grams. The average dietary fiber content across all products with a voluntary declaration was 6.5 grams per 100 grams in both the pre-check and the market check (Table 2).

15 breads and rolls were labelled with Nutri-Score A, although as "white flour products" they contained neither a proportion of whole grain flour nor other ingredients such as seeds with high fiber contents. On average, these products contained 3.7 grams of dietary fiber per 100 grams, just under half of all other Nutri-Score A products where the dietary fiber content was indicated by the manufacturer.

5.3 Pizzas

5.3.1 Change in the number of products with a Nutri-Score
Data was collected on 169 pizzas. 74 products (44 percent) were labelled with a Nutri-Score in the pre-check. Six pizzas had an A, 29 B, 37 C, and two D.

There were major changes between the pre-check and the market check, as manufacturers introduced the Nutri-Score during this time. 118 products (70 percent) were labelled with a Nutri-Score, which is 44 more pizzas than in the pre-check. This product group had the highest proportional change in products bearing a Nutri-Score. Instead of 29, 47 products were marked with a B in the market check. The number of products with Nutri-Score C increased from 37 to 61. Five pizzas had an A, another five a D (Illustration 8).

We could not always reproduce the Nutri-Score assigned by the manufacturers in the pizza product group. In 26 of the 118 pizzas labelled with a Nutri-Score (22 percent), crucial data was missing for the calculation of the number of points for the nutrition value, and thus for the exact Nutri-Score. In 25 products, the lack of fiber information and, in one case, the undeclared amount of vegetables contained meant that we could not verify the manufacturer's Nutri-Score. For all of these products, the Nutri-Score given by the manufacturer was mathematically possible using the maximum number of points for dietary fiber. For five other products, it was not possible to reproduce the manufacturer's Nutri-Score even with the highest possible number of points for fiber. In our view, the available data did not justify the Nutri-Score on these products. One other product's Nutri-Score was too low (more on this in Chapter 5.8).

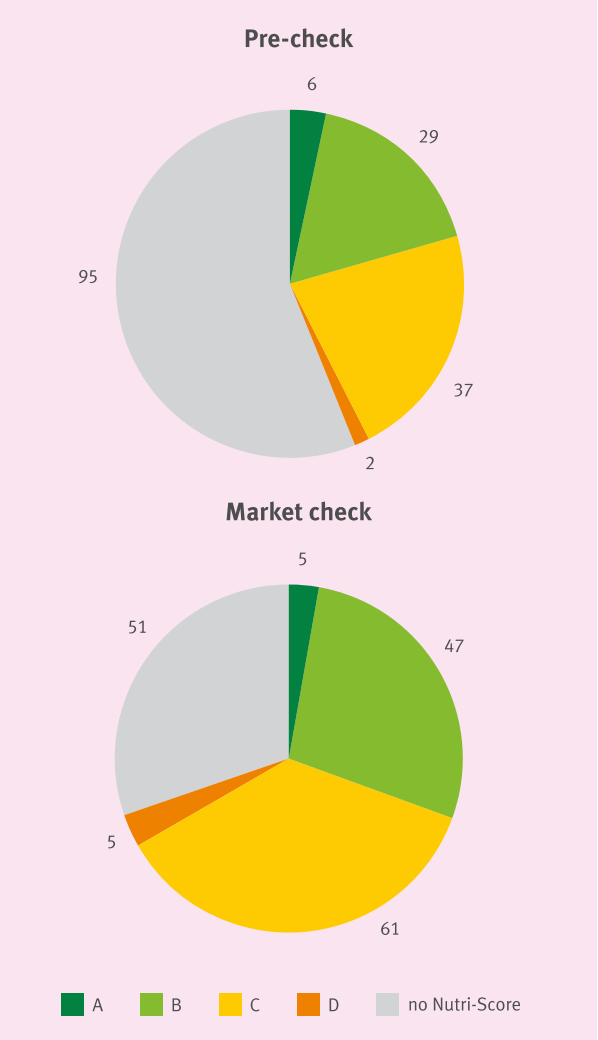

Illustration 8: *Comparison of number of pizzas (169) with and without Nutri-Score*

5.3.2 Changes in nutrition values and nutrient composition

For 88 pizzas (52 percent), the nutrition values in the market check differed from those of the pre-check. The changed nutrition values led to a better nutrient composition in 49 pizzas, for three of which the Nutri-Score also improved (Illustration 9).

We took a closer look at individual nutrition values that are particularly applicable to the calculation of the Nutri-Score for pizzas. Because the selected nutrition values varied greatly between the products surveyed, the number of points calculated for the products' Nutri-Scores naturally also varied greatly.

Saturated fatty acids

Saturated fatty acid content ranged from 0.4 to 7.1 grams per 100 grams. The average saturated fat content across all products surveyed in the market check was 3.4 grams per 100 grams (pre-check 3.5 grams per 100 grams). The tendency was that the better the Nutri-Score, the lower the average content of saturated fatty acids. Pizzas with Nutri-Score D had particularly high amounts of undesirable nutrients, with the average content of saturated fatty acids being four times as high as in pizzas with Nutri-Score A.

In 33 pizzas, the saturated fat content decreased in the period between the pre-check and the market check, while it increased in 24. In the majority of products (112), the content remained the same (Table 3).

Salt

The salt content of the pizzas surveyed ranged from 0.7 to 1.7 grams per 100 grams. The average salt content across all products in both the pre-check and market check was 1.2 grams per 100 grams. There was also a discernible trend related to the salt content: the worse the Nutri-Score, the higher the average salt content.

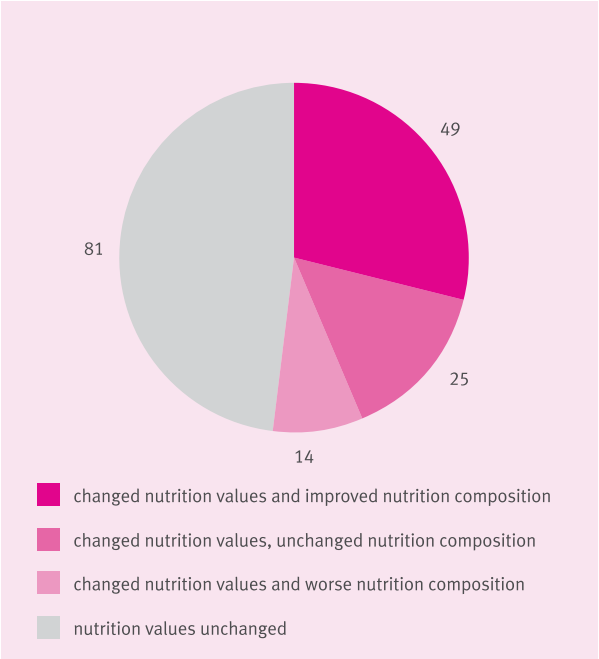

Illustration 9: *Number of pizzas (169) with changed and unchanged nutrition values*

By Nutri-Score C, the average salt content had risen to 1.2 grams per 100 grams. The five products with Nutri-Score D also contained an average of 1.2 grams of salt per 100 grams.

In 43 of the pizzas, the salt content decreased between the pre-check and the market check, while in 21 it increased. In 105 products, the salt content remained the same. As part of the German government's reduction strategy, the salt content in frozen pizzas is to be a maximum of 1.25 grams per 100 grams by 2025.[2] In the market check, 65 percent of the pizzas met this target (Table 4).

Nutri-Score	Number of products	Average content of saturated fatty acids (g/100 g)	Minimum – Maximum (g/100 g)
A	5	1.5	0.5 – 2.9
B	47	2.9	0.4 – 4.8
C	61	3.9	2.1 – 5.5
D	5	6.1	4.9 – 7.1

Table 3: *Saturated fatty acid content in pizzas with Nutri-Score*

Nutri-Score	Number of products	Average salt content (g/100 g)	Minimum – Maximum (g/100 g)
A	5	0.9	0.8 – 1.0
B	47	1.0	0.7 – 1.3
C	61	1.2	0.8 – 1.6
D	5	1.2	0.9 – 1.5

Table 4: *Salt content in pizzas with Nutri-Score*

5.4 Milk and dairy drinks

5.4.1 Change in the number of products with a Nutri-Score
Data was collected on 268 dairy drinks, including milk. In the pre-check, 65 products (24 percent) were labelled with a Nutri-Score. Most of the dairy drinks were in the green range: 19 had an A, 41 B, two C and three E. The three products with Nutri-Score E were coffee beverages with less than 80 percent milk content. The Nutri-Score for these products is calculated using the more stringent beverage formula (see below).

The market check showed the following changes compared to the pre-check: products with an A-rating increased from 19 to 22, and the number of products labelled B from 41 to 50. The number of C-labelled products remained the same, and there was only one with an E.

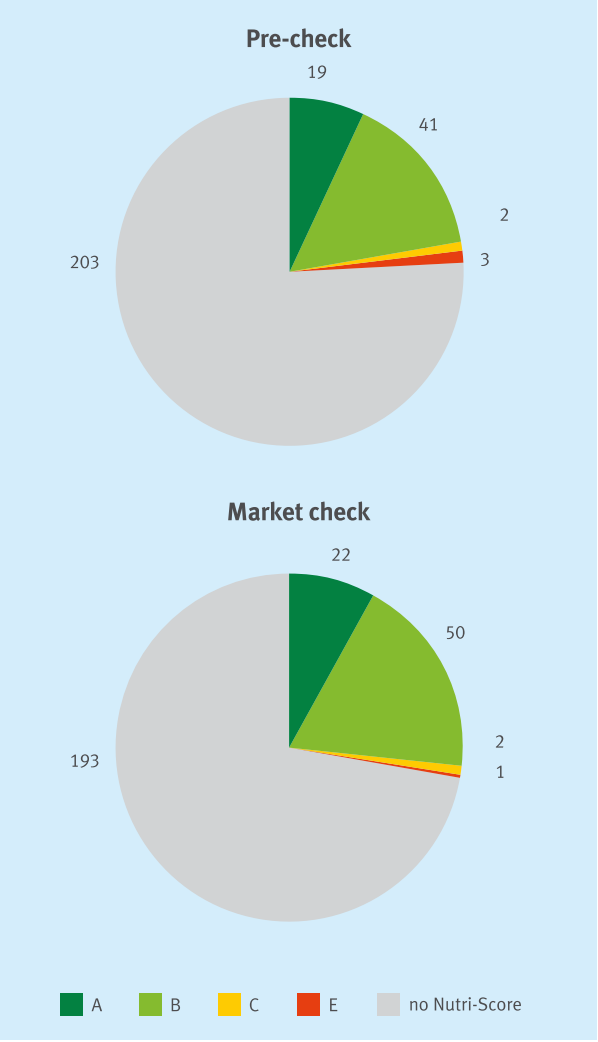

Illustration 10: *Comparison of the number of milk and dairy drinks (268) with and without Nutri-Score*

In the market check, 75 dairy drinks (28 percent) had a Nutri-Score, which is the lowest proportion of all product groups. There were 10 more products labelled with the Nutri-Score than in the pre-check. (Illustration 10).

In the milk and dairy drinks category, two different formulas are used for calculating the Nutri-Score, depending on the product composition. In this category, a special rule determines whether the beverage formula or the general formula for food should be applied. The decisive factor is always the milk content of the product. With a milk content of 80 percent or above, the Nutri-Score is calculated using the general formula. For a product with a milk content below 80 percent, the stricter beverage formula is used. The latter was the case for 33 dairy drinks in the market check. Only five of these 33 were labelled with a Nutri-Score, and four of the Nutri-Scores were too high because the respective manufacturers calculated it using the general formula. In 139 products, we were not able to evaluate the milk content because there were no quantities given in the ingredients list. 96 of the products were either milk or had a milk content of at least 80 percent.

In the market check, the Nutri-Score was incorrectly calculated for four of the 75 products labelled with a Nutri-Score, according to the available data (more on this in section 5.8).

5.4.2 Changes in nutrition values and nutrient composition
In one quarter of the milk and dairy drinks surveyed (24 percent), the nutrition values differed in the market check as compared to the pre-check (63 products). For the most part, the nutrient composition remained the same despite the changed nutrition values. (Illustration 11).

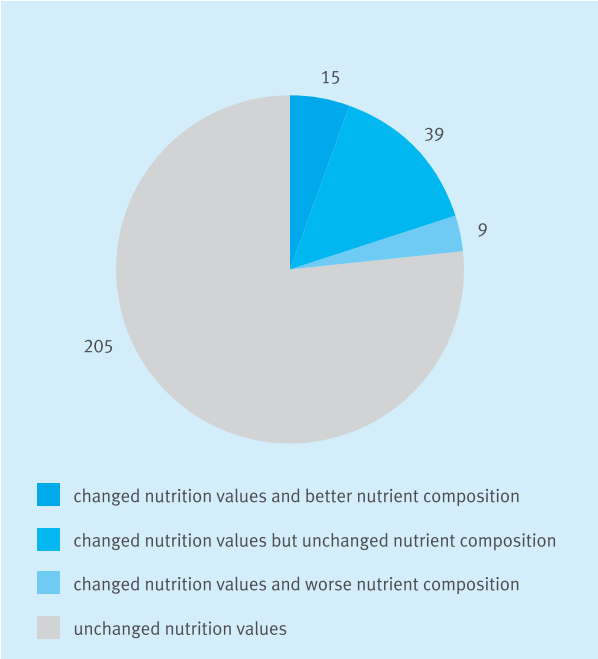

Illustration 11: *Number of milk and dairy drinks (268) with changed and unchanged nutrition values*

We took a closer look at individual nutrition values that are particularly applicable for calculating the Nutri-Score for milk and dairy drinks. The selected nutrition values for the products surveyed vary widely, so that the number of points used in the Nutri-Score calculation also varied.

Sugar

The sugar content of the milk and dairy drinks surveyed in the market check ranged from 1.9 to 14 grams per 100 grams. In both surveys, the average sugar content for all products was 7.3 grams per 100 grams. The tendency: the worse the Nutri-Score, the higher the average sugar content. The range of sugar content was particularly wide in the products with Nutri-Score B, varying between 3.9 and 13.2 grams per 100 grams. Since only one product bore Nutri-Score E, we did not include it in the table (Table 5).

Nutri-Score	Number of products	Average sugar content (g/100 g)	Minimum – Maximum (g/100 g)
A	22	4.5	2.9 – 7.3
B	50	9.1	3.9 – 13.2
C	2	11.2	10.0 – 12.3

Table 5: *Sugar content in milk and dairy drinks with Nutri-Score (products with Nutri-Score E not included)*

For 18 of the milk and dairy drinks, the sugar content was lower than in the pre-check, while for 23 it was higher. For the remaining 227 products, the content remained the same.

In the pre-check we identified 15 milk-based mixed drinks marketed for children. On average, these products contained more sugar (8.8 grams per 100 grams) than the other dairy drinks in the product group (7.3 grams per 100 grams).

Protein

The protein content of the milk and dairy drinks in the market check ranged from 0.1 to 10 grams per 100 grams. The average protein content across all products in both the pre-check and market check was 3.4 grams per 100 grams. Products with Nutri-Score B had lower average protein content than products with Nutri-Score A. The two products marked with Nutri-Score C did not follow this trend. (Table 6).

Nutri-Score	Number of products	Average protein content (g/100 g)	Minimum – Maximum (g/100 g)
A	22	4.9	2.6 – 8.3
B	50	3.0	2.5 – 3.7
C	2	3.0	2.9 – 4.0

Table 6: *Protein content in milk and dairy drinks with Nutri-Score (products with Nutri-Score E not included)*

The decisive factor in determining whether the Nutri-Score is better or worse is usually not the content of the individual nutrition values in dairy drinks, but rather the milk content. As mentioned above, the Nutri-Score specifications require that the general formula be applied if the milk content is 80 percent or higher. This formula usually resulted in Nutri-Scores of A and B, even though some products had a high sugar content. If the milk content of dairy drinks is below 80 percent, the Nutri-Score must be calculated using the more stringent beverage formula, which usually results in a Nutri-Score of D or E.

5.5 Plant-based drinks

5.5.1 Change in number of products with a Nutri-Score
Data was collected for 98 plant-based drinks. 44 of these products (45 percent) were labelled with a Nutri-Score in the pre-check. Most of the products had a green rating: 18 products with A, 24 with B. The Nutri-Score for the two products with a D-rating was calculated by the manufacturer using the beverage formula, as they were considered coffee beverages in which the proportion of plant-based drink contained was low.

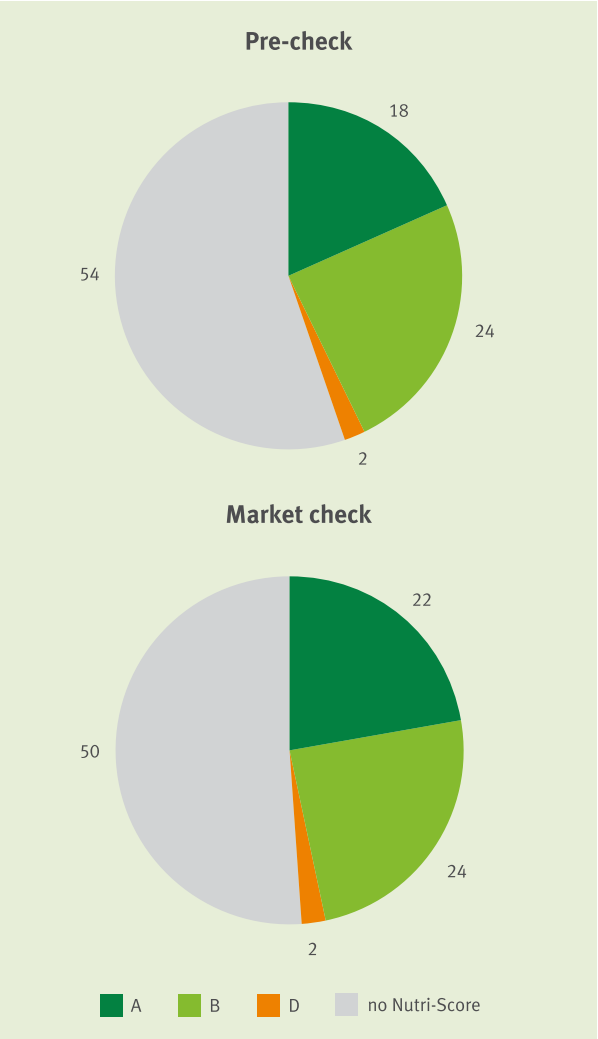

Illustration 12: *Comparison of number of plant-based drinks (98) with and without a Nutri-Score*

Hardly any changes were observed in the market check: the number of products labelled with a Nutri-Score rose to 48 (49 percent), and the number of products labelled with A rose to 22. Three of the four newly labelled products were given an A, one product a B. For one product, the Nutri-Score improved from B to A. (Illustration 12).

In the market check, we were able to reproduce the Nutri-Score calculation for all labelled plant-based drinks. This was not the case for any of the other product groups. One product was, in our view, incorrectly labelled, as the manufacturer of the coffee drink did not use the beverage formula and thus calculated a better Nutri-Score (more on this in section 5.8).

5.5.2 Changes in nutrition values and nutrient composition

In 18 percent of the plant-based drinks surveyed, the nutrition values in the market check differed as compared to the pre-check (18 products). In most cases, the changed nutrition values did not influence the nutrient composition. (Illustration 13).

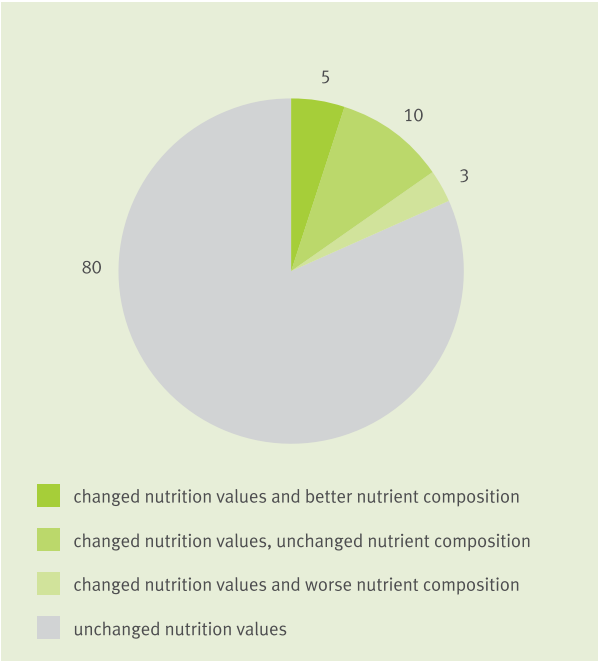

Illustration 13: *Number of plant-based drinks (98) with changed and unchanged nutrition values*

According to our calculations, all but three products (96 percent) in the plant-based drinks product group should be labelled A or B, as these products contained very few nutrients that strongly influenced the Nutri-Score rating. The sugar and protein content were the only elements that showed variation. For example, the sugar content across all products ranged from zero to 7.6 grams per 100 grams. For the calculation of the Nutri-Score, however, this meant a maximum of one point for sugar. The protein content was between 0.1 and 5.0 grams per 100 grams and earned the products up to three points in the calculation, which positively influenced the number of points given for nutrition value when calculating the Nutri-Score.

For two coffee drinks, the manufacturer calculated the Nutri-Score using the beverage formula, since the proportion of the plant-based drink was low in relation to the coffee. The German consumer organisations saw it the same way. The Nutri-Score for another coffee drink should also have been calculated using the beverage formula, but the manufacturer used the formula for general foods, which resulted in a B-rating as opposed to the D-rating it should have received.

5.6 Cereals

5.6.1 Change in number of products with a Nutri-Score

In the pre-check, data was collected for 402 cereals. 85 of these products (21 percent) were labelled with a Nutri-Score. 34 products bore an A-rating, 14 B, 31 C, and six D.

In the market check, significantly more products had a Nutri-Score: 45 with an A, 21 B, 38 C, and seven D. In total, 111 products (28 percent) were labelled with a Nutri-Score, 26 more than in the pre-check. Nevertheless, the cereals product group, together with the milk and dairy drinks group, had the lowest proportion of products marked with a Nutri-Score.

In the market check, we could not reproduce the Nutri-Score rating for 22 of the 111 labelled products (20 percent). These 22 products all lacked data on the fiber content. The Nutri-Score was calculated incorrectly for 3 products, according to the data available (more on this in chapter 5.8) (Illustration 14).

5.6.2 Changes in nutrition values and nutrient composition

In 23 percent of the cereals surveyed, the nutrition values differed in the market check as compared to the pre-check (93 products). Changed nutrition values led to an improved nutrient composition in more than every second product (Illustration 15).

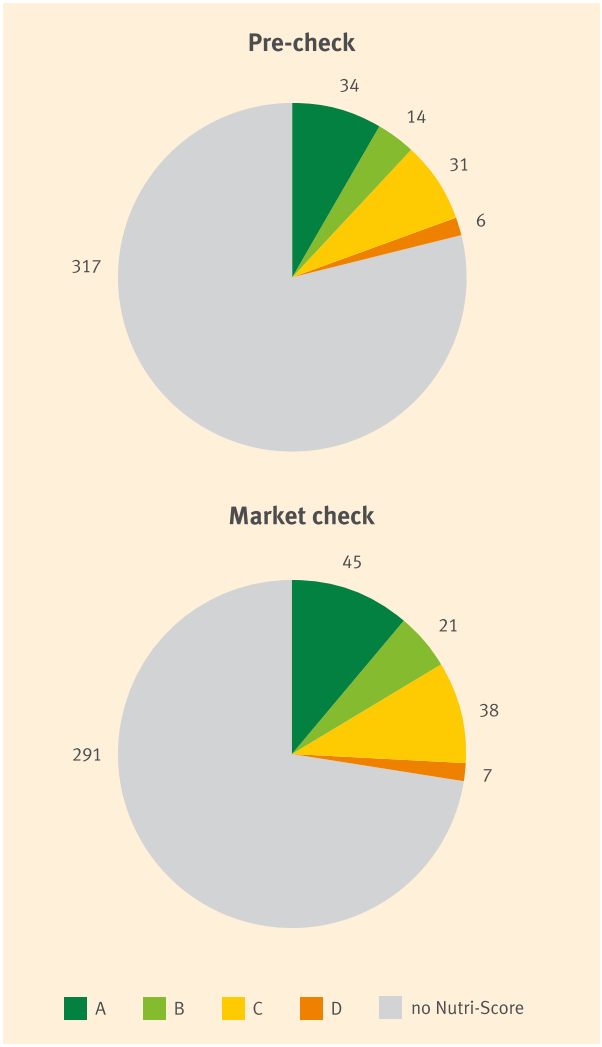

Illustration 14: *Comparison of number of cereal products (402) with and without a Nutri-Score*

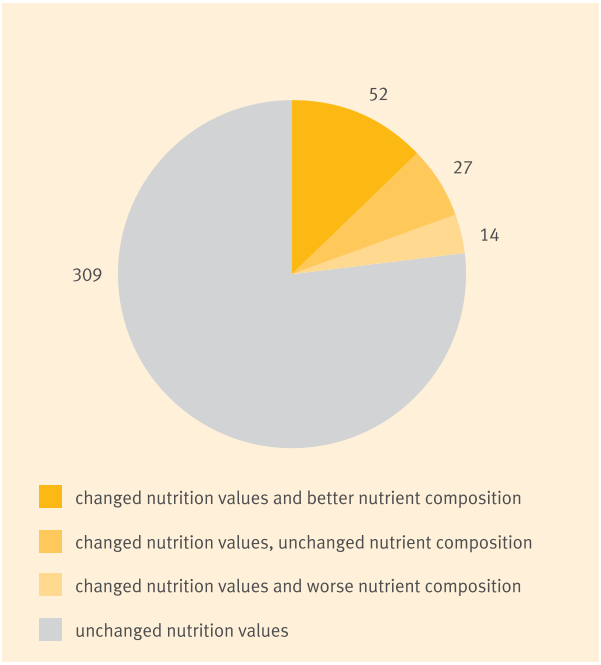

Illustration 15: *Number of cereals (402) with changed and unchanged nutrition values*

We took a closer look at individual nutrition values that are particularly important for calculating the Nutri-Score for cereals. The content of the selected nutrition values varied greatly in the products surveyed, resulting in different numbers of points for the Nutri-Score calculation.

Saturated fatty acids

The saturated fatty acid content in the market check ranged from 0.1 to 12 grams per 100 grams. The average saturated fat content across all products in both the pre-check and market check was 2.9 grams per 100 grams. There was a clear trend: the worse the Nutri-Score, the higher the average saturated fatty acid content. For cereals with Nutri-Score D, the average value was six times higher than for products with Nutri-Score A (Table 7).

Nutri-Score	Number of products	Average saturated fatty acids content (g/100 g)	Minimum – Maximum (g/100 g)
A	45	0.9	0.1 – 2.9
B	21	1.6	0.2 – 4.8
C	38	2.4	0.2 – 6.3
D	7	5.6	2.0 – 8.3

Table 7: *Saturated fatty acid content in cereals with Nutri-Score*

Sugar

Sugar content in the market check ranged from 0.6 to 37 grams per 100 grams. The lower the Nutri-Score, the higher the average sugar content. The average sugar content across all products in the market check was 16.9 grams per 100 grams, slightly lower than in the pre-check (17.1 grams per 100 grams).

Nutri-Score	Number of products	Average sugar content (g/100 g)	Minimum – Maximum (g/100 g)
A	45	11.3	0.6 – 24.9
B	21	15.5	4.8 – 24.9
C	38	22.2	9.3 – 32.9
D	7	24.8	21.0 – 29.3

Table 8: *Sugar content in cereals with Nutri-Score*

For 44 products, the sugar content was lower than in the pre-check, while for 20 it was higher. For the remaining 338 products, the sugar content was unchanged. (Table 8).

Dietary fiber

The dietary fiber content of the cereals ranged from 1.4 to 23 grams per 100 grams for the products with a voluntary dietary fiber declaration. The average dietary fiber content of these products was 7.9 grams per 100 grams (pre-check 8.0 grams per 100 grams).

The trend in average dietary fiber content was not quite as pronounced as for sugar. Nevertheless, the average dietary fiber content was highest for products with Nutri-Score A, and lowest for those with Nutri-Score D (Table 9).

Nutri-Score	Number of products	Average dietary fiber content (g/100 g)	Minimum – Maximum (g/100 g)
A	31	8.0	2.1 – 12.0
B	16	5.7	1.7 – 8.9
C	32	5.9	1.4 – 11.0
D	6	4.8	1.7 – 7.5

Table 9: *Dietary fiber content for cereals with Nutri-Score (only products with fiber declaration)*

5.6.3 Special features of cereals marketed for children

Sugar

At 22.7 grams per 100 grams, the average sugar content in the cereals marketed for children was significantly higher (44 percent) than the average sugar content in the cereals not marketed for children (15.8 grams per 100 grams). It remained virtually unchanged from the pre-check (22.9 grams per 100 grams) (Table 10).

Nutri-Score	Number of products	Average sugar content (g/100 g)	Minimum – Maximum (g/100 g)
A	9	15.7	12.3 – 24.9
B	7	21.7	17.0 – 24.9
C	15	24.9	21.0 – 32.9

Table 10: *Sugar content in child-targeted cereals with Nutri-Score*

The child-targeted cereals with Nutri-Score A had, on average, a significantly higher sugar content than products not aimed at children. The same was true for the B- and C-rated products. Of the 10 products with the highest sugar content, eight were marketed for children. In contrast, among the 100 products with the lowest sugar content, only two were marketed for children.

Saturated fatty acids
The average saturated fat content of 1.6 grams per 100 grams for the cereals marketed for children was lower than the average content of 3.1 grams per 100 grams for products not marketed for children.

Dietary fiber
The average dietary fiber content of 6.5 grams per 100 grams for cereals marketed for children was lower than the average content of 8.2 grams per 100 grams for products not marketed for children.

Higher dietary fiber content, especially when combined with relatively low levels of saturated fat, resulted in a good Nutri-Score even in high-sugar cereals.

5.7 Difficulties in collecting data

Stating the amount of **dietary fiber** contained in a product in the nutrition table is not usually required. Some manufacturers nevertheless indicate it voluntarily. The lack of fiber information was the most common reason for our inability to reconstruct and thus verify the manufacturer's Nutri-Score.

In the **fruit-vegetable-nuts category**, the amount of certain oils or kernels, in addition to the ingredients mentioned, are also included in the calculation of the Nutri-Score. The content must be at least 40 percent to have a positive influence on the calculation, but the amounts of these ingredients were around this threshold for many products. For very many products, the exact quantity of the relevant ingredients was not given, which meant that the Nutri-Score could not be calculated with certainty. In addition, it was sometimes unclear in which form an ingredient was present, and the form determines whether and how the ingredient is taken into account for the calculation. The Nutri-Score FAQs specify that, for example, concentrated fruit purees or freeze-dried fruits are not included in the "fruit-vegetable-nuts" category, whereas fruit juices and dried fruit are.[1]

In the products surveyed online, the **information** in the nutrition table or in the descriptive text for a product did not **match** the nutrition values shown in the product photo. Similarly, a different Nutri-Score was shown on product photos than in the accompanying descriptive text.

For dairy drinks, the **milk content** determines whether the Nutri-Score for a product is calculated using the general formula or as a beverage. If the milk content is below 80 percent, the product is considered a beverage; if it is 80 percent or more, it is considered a solid food (general case). The lack of information on the quantity of milk contained (for example, in mixed dairy drinks) made it difficult to assess the actual amount of milk. The German consumer organisations are of the opinion that only milk and not dairy products (e.g. cream) or milk components (e.g. milk proteins) should be included in the calculation. Some manufacturers saw it differently.

5.8 Incorrectly calculated Nutri-Scores (from the point of view of the German consumer organisations)

Of all 1451 products surveyed, there were 17 for which we determined that the manufacturers' Nutri-Scores were incorrect. We contacted seven manufacturers of these products and asked them to comment. All manufacturers responded to the request.

The manufacturers provided various explanations for the discrepant results in the Nutri-Score calculations:

5.8.1 Outdated information on websites

For eight food products, the manufacturers stated that the information on the websites was not up to date. Nutrition values and/or product photos of the predecessor product were displayed, so that nutrition value information did not match the product photos. The information on the websites has since been corrected and process optimizations have been promised.

5.8.2 Rounding when converting sodium to salt

In three instances, the manufacturers stated that rounding in the conversion of sodium to salt was the reason for the deviating Nutri-Score.

In each case, the manufacturers determined the sodium content by means of a nutritional analysis. However, according to the Nutri-Score Usage Regulation, the decisive factor for calculating the Nutri-Score is the salt content stated in the nutritional values table, which, divided by 2.5, gives the sodium content.

According to the INCO, the salt content (= sodium content multiplied by 2.5) must be indicated in the nutrition table on the product packaging. The Guidance Document for Competent Authorities for the Control of Compliance with EU Legislation[11] points out in Section 6, Rounding Guidelines for Nutrition Declarations for Foods, that both the salt content and the sodium content are to be rounded to one decimal place for one or more grams per 100 grams, and to two decimal places for less than one gram. Accordingly, the manufacturer would convert the analyzed sodium value into salt and round the salt content. This salt content is the basis for calculating the Nutri-Score. This process involved a back calculation for sodium, which in some cases resulted in a different sodium value than the analytically determined value. If the number of points for a product's nutrition value is on the borderline between two Nutri-Score ratings, it can happen that the measured sodium content leads to a better Nutri-Score. For example: a sodium content of 620 mg per 100 g is analyzed for a loaf of bread. The conversion results in a rounded salt content of 1.6 g per 100 g. Back-calculating the salt content gives 640 mg of sodium per 100 g for the Nutri-Score calculation, resulting in a Nutri-Score of B. The manufacturer, though, Usage Regulation, but rather with the analyzed sodium content of 620 mg, and can thus declare a Nutri-Score of A.

Calculation with measured sodium content:

	energy (kJ/100 g)	saturated fatty acids (g/100 g)	sugar (g/100 g)	protein (g/100 g)	salt (g/100 g)	dietary fiber (g/100 g)	fruits/ vegetables/ nuts/oil (%/100 g)	sodium (mg/100 g)	value	Nutri-Score
	915	0.1	1.9	6.7	1.55	7.6	0	620		
points	2	0	0	4		5	0	6	–1	A

620 mg x 2,5 = 1550 mg salt
rounded to 1.6 g salt for the nutrition table

Calculation with salt content from the nutrition table:

	energy (kJ/100 g)	saturated fatty acids (g/100 g)	sugar (g/100 g)	protein (g/100 g)	salt (g/100 g)	dietary fiber (g/100 g)	fruits/ vegetables/ nuts/oil (%/100 g)	sodium (mg/100 g)	value	Nutri-Score
	915	0.1	1.9	6.7	1.6	7.6	0	640		
points	2	0	0	4		5	0	7	0	B

1600 mg / 2,5 = 640 mg sodium

Illustration 16: *Differing calculations for salt content*

5.8.3 Differing assessments of dairy drinks

The Nutri-Score for dairy drinks is calculated using the beverage formula if the milk content is below 80 percent. Only when the milk content is 80 percent or more must the Nutri-Score be calculated using the general formula.

For four dairy drinks, the manufacturers calculated the Nutri-Score using the general formula, even though the pure milk content was below 80 percent. We believe that the Nutri-Score for these products should be calculated with the beverage formula, resulting in a Nutri-Score E instead of B or D instead of A. Three products had cream in addition to milk, with which the milk content reaches exactly 80 percent.

This discrepancy arises from the manufacturers' different interpretations of which ingredients are counted as milk content. One of the manufacturers declares "Milk enriched with cream (80 percent)" in the list of ingredients for two dairy drinks. In the view of the German consumer organisations, this is a fair calculation of the Nutri-Score. In the pre-check, the list of ingredients for these products still listed the ingredients whole milk (75 percent) and cream (5 percent) separately. Another dairy drink contained 75 percent whole milk and five percent cream, according to the manufacturer's website, and one other product contained 56 percent milk protein and 25 percent skim milk. Milk protein and cream are not equivalent to milk, according to the Milk Products Regulation.

5.8.4 Unclear classification in coffee beverages containing plant-based drinks

One manufacturer classified its coffee beverage with two percent almond paste as a plant-based drink and calculated the Nutri-Score using the general formula, giving the product a Nutri-Score of B. The German consumer organisations are of the opinion that this is a sweetened coffee drink with a proportion of plant-based drink, which would require the use of the beverage formula. The consequence would be a Nutri-Score of D.

5.9 Discrepancies in the application of the Usage Regulation

The conditions for using the Nutri-Score logo are detailed in the Usage Regulation, translated from the French original.[9] In both the pre-check and the market check, we observed the following infringements:

5.9.1 Using the neutral Nutri-Score logo on products

Article 6.2.2 of the Usage Regulation states that "[t]he Industry actor may under no circumstances apply the neutral Logo to their Products."[9] On actual products, manufacturers may only use the classification logo, meaning the Nutri-Score with one of the five letters highlighted (Illustration 17).

Illustration 17: *Screenshot from the REWE online shop* [12]

5.9.2 Placement of the Nutri-Score on packaging

The Usage Regulation specifies the placement of the Nutri-Score in Appendix 1: "The graphic symbol is placed on the lower third of the front of the packaging." Exceptions apply only to very small items, whose largest surface is smaller than 25 cm^2 [9] (Illustration 18).

Illustration 18: *Screenshot from the Nestlé website* [13]

5.9.3 Additions to the Nutri-Score logo

In Article 6.5, the Usage Regulation states that the manufacturer may "not make additions to the logo, particularly not including a key, text, or any other indication that is not part of the logo."[9] In this example, the Nutri-Score was supplemented with three other logos:

- "potatoes from Germany"
- "vegan"
- "no flavor enhancers"

Illustration 19: *Screenshot 1 from the Lorenz website* [14]

Illustration 20: *Screenshot 2 from the Lorenz website* [14]

5.10 Inquiries with the state food safety and inspection agencies

5.10.1 Regular monitoring of the Nutri-Score is not ensured

According to the specifications of Santé publique France, which developed the criteria for the Nutri-Score, it is a voluntary supplementary label in the EU. By registering with Santé publique France, Nutri-Score users submit all data necessary for its calculation. In doing so, they agree to comply with the terms of use. But, who checks whether the manufacturer's information on the label is actually correct? The German consumer organisations asked the food safety authorities in 14 German federal states whether they check this voluntary logo as part of their official inspections.

Only three federal states include checking the Nutri-Score among their regular inspection tasks. Five federal states do not check the label because they have no enforcement authority. In some cases, mention was made of the effort involved. In the period 2021 to 30 April 2022, six monitoring authorities checked the Nutri-Score on an ad hoc basis, for example after a plausibility check of the ingredients or nutrients. On these occasions, elaborate analyses were carried out in isolated cases. To date, no federal state keeps statistics on their monitoring of the Nutri-Score; one federal state plans to do so in the future. Some federal states estimated the number of their checks on the Nutri-Score at 50-300. Only one instance of mislabelling has been found so far, and it was due to misinterpretation of the calculation basis, according to the authorities. No legal proceedings have been initiated (Illustration 21).

All food safety authorities agreed on one point: the Nutri-Score can often only be estimated with only the mandatory information on the packaging. A reliable calculation would require that the recipe was available, and in some cases the degree to which individual ingredients were processed. This information would have to be made available by the manufacturer, and would have to be checked. Some of the authorities interviewed did not consider a declaration of all relevant nutrients and ingredients to be expedient for their monitoring, and that such a declaration would ultimately be confusing for consumers.

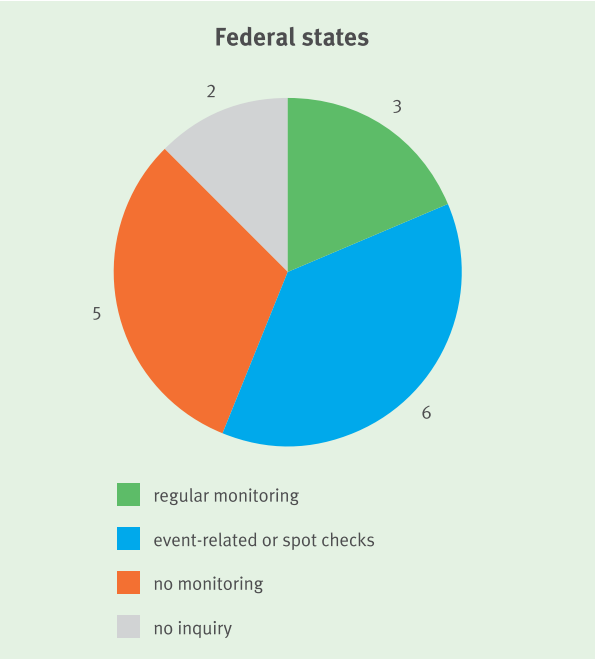

Illustration 21: *Monitoring of the Nutri-Score in the 16 German federal states*

The consumer associations also asked the Federal Ministry of Food and Agriculture for a statement on the monitoring of the Nutri-Score. The Ministry pointed out in a response dated 6 September 2022 that according to "(...) an agreement in principle between the states involved or interested in the Nutri-Score, the participants have agreed to ensure the monitoring of compliance with the legally correct use of the Nutri-Score trademark in their respective territories. In Germany there is to be a regulator for this purpose. In order to assign the task to a third party in compliance with private law, a formal tendering process is currently being prepared and will be carried out shortly. (...)".

In their letter, the Federal Ministry of Food and Agriculture also points out that information provided voluntarily must also comply with the relevant food law regulations. Compliance with these regulations is to be monitored by the federal states on a risk basis.

6 CONCLUSION

6.1 Halting progress with the Nutri-Score labelling

Although more products bore the Nutri-Score in the 2022 market check than in the 2021 pre-check, the increase of seven percent (102 products) was not as strong as the consumer associations had hoped. The trend for pizzas is positive: in the market check, 70 percent of the products had a Nutri-Score. Cereals, milk and dairy drinks brought up the rear. In these product groups, only about one-quarter of the products in the market check bore the Nutri-Score.

6.2 Little change in the information provided by the Nutri-Score

Only 3 percent of the 477 foods (13 products) were labelled with a better Nutri-Score in the market check than in the pre-check. We were not able to reliably track an improvement in the nutrient composition for all products, as the necessary data for the calculation was not available.

The nutrition values relevant for the Nutri-Score changed in more than one-fifth of all products. Compared with the pre-check, 45 percent of these products had a better, 18 percent a worse and 38 percent a comparable nutrient composition.

6.3 The Nutri-Score provides guidance

The results of the market check show that the Nutri-Score is a good representation of the nutritional composition of the foods surveyed. The worse the Nutri-Score, the higher the average salt content of pizza or breads and rolls, for example. The correlation between a good Nutri-Score and a low saturated fatty acids content was even clearer in the pizza product group.

6.4 Algorithm improvements necessary

Some cereals were given a good Nutri-Score despite their high sugar content because they also had a high fiber content and/or a low saturated fat content. These included, in particular, the cereals marketed for children, which had a significantly higher sugar content overall than cereals not marketed for children. Better differentiation would be desirable here, which could be achieved, for example, with a more rigorous evaluation of sugar content. It was also shown that, in this regard, the Nutri-Score does not really create an incentive to reduce the sugar in cereals marketed for children.

In the group of breads and rolls, products made with white flour received a Nutri-Score A, which is untenable from a nutritional point of view. This rating is achieved because the maximal number of points for dietary fiber is reached even with a low dietary fiber content.

In the case of dairy drinks, products with only minimally different compositions received completely different Nutri-Scores. This discrepancy is due to the different calculations for beverages and for general food, depending on the milk content. This confusion limits the usefulness of the Nutri-Score in helping consumers to assess the nutritional composition of these products.

The Steering Committee of the COEN countries (Countries officially engaged in Nutri-Score) has agreed to proposals from the Scientific Panel to adjust the algorithm. The results of the market check show that these improvements are going in the right direction. The sugar and salt content are to be given more weight. In addition, the salt content rather than the sodium content is to be included directly in the calculation. For dairy drinks, the Nutri-Score is to be calculated uniformly using the beverage formula, regardless of the milk content. Furthermore, a higher fiber content will be necessary to increase the number of points attributed to the nutrition value in the Nutri-Score calculation. However, a high fiber content is not necessarily equivalent to a high whole grain content. It can also be achieved by adding plant fiber.

6.5 More transparency for the calculation necessary

The Nutri-Score calculation lacks transparency. For every fifth product with a Nutri-Score, the German consumer organisations were unable to verify the information provided by the manufacturers. This was mainly because the fiber content required for the calculation is not mandatory on the label, but also because of the lack of information on the quantity of fruits, vegetables and nuts.

6.6 Monitoring by food safety agencies is not guaranteed

In the view of the German consumer organisations, monitoring of the correct calculation of the Nutri-Score is not guaranteed. Of the 14 federal states where we inquired, only three regularly check it, while five do not check it at all. The federal states should include checking the Nutri-Score in their routine inspections. As the situation is now, consumers are forced to rely on the manufacturers' careful and honest calculations.

6.7 German consumer organisations support the Nutri-Score

The Nutri-Score is an easy-to-understand label for quickly assessing the nutrient composition of a processed food. It can help to make better choices. The Nutri-Score is useful for comparing foods within a specific product group.

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7 OUR RECOMMENDATIONS

7.1 Recommendations to policymakers

- To date, the Nutri-Score is voluntary. Only if all processed foods carry the Nutri-Score is a comprehensive comparison is possible. Thus, mandatory Nutri-Score labelling throughout Europe is necessary.

- Policymakers must create a framework that ensures that the Nutri-Score information provided by manufacturers is regularly and comprehensively monitored by an independent body.

7.2 Recommendations to those responsible for the further development of the Nutri-Score

- In the view of the German consumer organisations, the changes to the Nutri-Score algorithm planned by the Scientific Panel are a step in the right direction. Additionally, the sugar content must be evaluated even more strictly. We also call for the whole grain content to be taken into account. Both of these changes would make a better differentiation between products possible, in terms of their nutrient composition, and would take current dietary recommendations better into consideration.

- The Usage Regulation should stipulate that manufacturers must provide all data necessary for calculating the Nutri-Score.

7.3 Recommendations to the manufacturers

- The food industry should hasten the introduction of the Nutri-Score. For it to be fully effective, all processed foods must be labelled with the Nutri-Score.

- Until it becomes mandatory, manufacturers should voluntarily provide all the data needed to calculate the Nutri-Score.

8 LITERATURE

1. **Santé publique France.**
   Nutri-Score Frequently asked questions. [Online]
   https://www.santepubliquefrance.fr/media/files/02-determinants-de-sante/nutrition-et-activite-physique/nutri-score/qr-scientifique-technique-en.

2. **Federal Ministry of Food and Agriculture.**
   National Reduction and Innovation strategy: Less sugar, fat and salt in finished products. [Online] Aug 03, 2021.
   https://www.bmel.de/DE/themen/ernaehrung/gesunde-ernaehrung/reduktionsstrategie/reduktionsstrategie-zucker-salz-fette.html.

3. **Dr. Bartsch, Silke and Dr. Methfessel, Barbara.**
   Nutritional skills in a globalized (eating) world. Ernährung im Fokus. 2016, 3-4.

4. **Federal Ministry of Food and Agriculture.**
   Extended nutritional labelling: Consumers want Nutri-Score. [Online] [Quoted: June 17, 2022]
   https://www.bmel.de/DE/themen/ernaehrung/lebensmittel-kennzeichnung/freiwillige-angaben-und-label/nutri-score/naehrwertkennzeichnungs-modelle-nutriscore.html.

5. **Regulation (EU) No. 1169/2011 of the European Parliament and the Council.** (Online)
   https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:304:0018:0063:EN:PDF.

6. **Federal Law Gazette 2020 Part I No. 49.** [Online]
   https://www.bgbl.de/xaver/bgbl/start.xav?startbk=Bundesanzeiger_BGBl&start=//*%5B@attr_id=%27bgbl120s2266.pdf%27%5D#__bgbl__%2F%2F*%5B%40attr_id%3D%27bgbl120s2266.pdf%27%5D__1666593973622.

7. **Santé Publique France.**
   Notoriété, perception et utilisation déclarée du Nutri-Score par les adolescents: des résultats inédits. [Online] [Quoted: June 14 2022.] https://www.santepubliquefrance.fr/presse/2022/notoriete-perception-et-utilisation-declaree-du-nutri-score-par-les-adolescents-des-resultats-inedits.

8. **Federal Ministry of Food and Agriculture.**
   Help for companies – introduction of the Nutri-Score. [Online] [Quote dated: October 27, 2022]
   https://www.bmel.de/DE/themen/ernaehrung/lebensmittel-kennzeichnung/freiwillige-angaben-und-label/nutri-score/naehrwertkennzeichnung-hilfestellungen.html.

9. **Usage Regulation for the "Nutri-Score" Logo.** [Online] [Quoted: October 10, 2022]
   https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/usage_regulation_en_01102019.pdf.

10. **Federal Ministry of Food and Agriculture.**
    Calculate Nutri-Score via Excel table – German translation (directly as Excel download). [Online] [Quoted: June 01, 2021] https://www.bmel.de/SharedDocs/Downloads/DE/_Ernaehrung/Lebensmittel-Kennzeichnung/nutri-score-dt-excel-berechnungstabelle.html.

11. **European Commission.**
Guidance Document for Competent Authorities for the Control of Compliance with EU Legislation. [Online] December 2012. https://www.fsai.ie/uploadedfiles/guidance_tolerances_december_2012.pdf.

12. **REWE Markt GmbH.** ja! Latte Cappuccino 250 ml. [Online] [Quoted: October 5, 2022] https://shop.rewe.de/p/ja-latte-cappuccino-250ml/2464069?region_id=840401&serviceTypes=pickup&ecid=pla_google_vs_nonbr_%28shp%7Cpickup%29pm%7Cem-ja_frische-k%C3%BChlung_lia_8704572403_91643292910&gclid=EAIaIQobChMIu_CmzbPI-gIVDoCDBx1nAA9sEAQYAiABEgIr9_D_B.

13. **Cereal Partners Deutschland GmbH & Co. OHG. NESQUIK DUO.** [Online] [Quoted: October 5, 2022] https://www.nestle-cereals.com/de/produkte-aktionen/marken/nestle-nesquik-uebersicht/nestle-nesquik-duo.

14. **The Lorenz Bahlsen Snack-World GmbH & Co Germany.** Do you love the mediterranean cuisine? [Online] [Quoted: October 5, 2022.] https://lorenz-snacks.de/naturals.

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