



Cargill solutions for healthier, more affordable food & beverages

June 2020

Content



Consumer needs

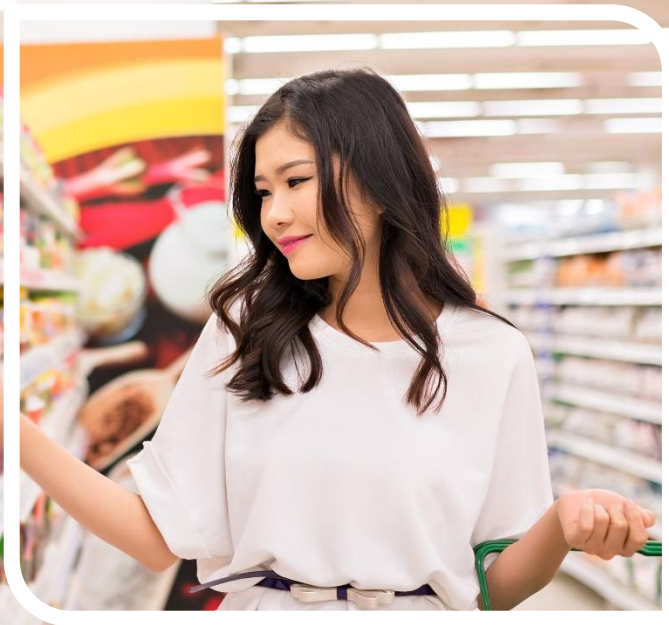


Reformulating for healthier, more affordable solutions



Partnering with Cargill

Consumer needs



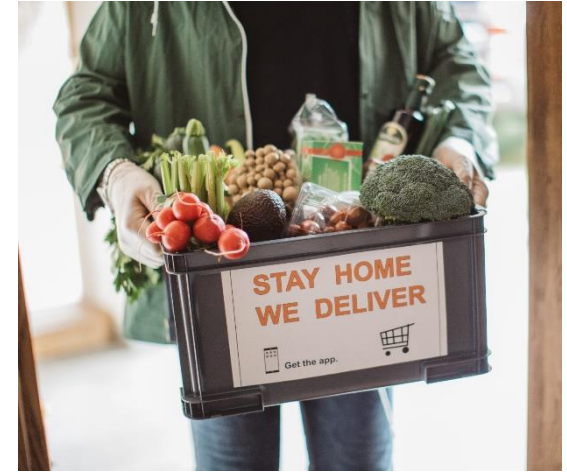
Disruption



WHAT
consumers buy &
eat



HOW
consumers shop



WHERE
consumers shop
& eat

Especially the **WHAT** might lead to sustained changed purchasing behaviors

WHAT consumers buy & eat

- Shift in factors consumers pay importance to (**health**, shelf life, **cost** ↑)
- Increase in staples and longer life products
- More home-made food

HOW consumers shop

- Increased stockpiling
- Fewer trips
- Larger baskets
- Less time spent in shops

WHERE consumers shop & eat

- Shutdown of foodservice
- Rise in food delivery
- Shift to more eating at home
- Rise in online groceries
- Shift to different stores (discounters, smaller stores ↑)

Factors of importance for consumers have changed

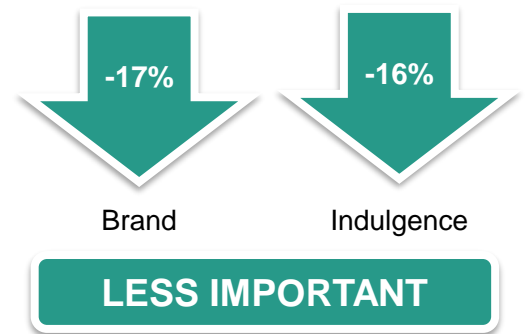
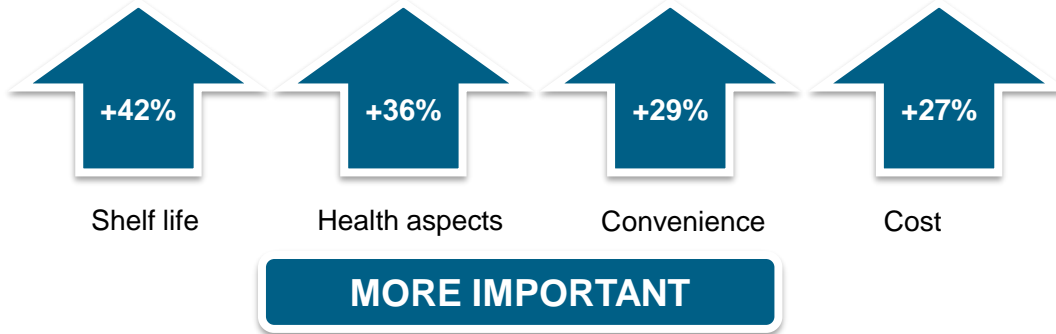
Shelf life, health, convenience and cost have become much more important



50%


...of European consumers say that they have **bought different things** as they would normally do during this time (COVID-19 situation)

Shift in factors to which European consumers are paying importance to when buying food & beverages



Q: "When buying food/drinks during the current COVID-19 situation, what factors have become MORE or LESS important?"

Note: Factors for which perceived importance has remained the same are excluded from the data presented here



**Reformulating for
healthier, more
affordable
solutions**

A wise man once said

**“Product renovation without tasting
a meaningful difference is the
biggest innovation”**



Some words of caution first

Innovation or renovation

Be clear on the objective



Good Better Best

Upgrading & upselling
Trade-offs will need to be made



Legislative impact

Changes in recipe could imply
changing the product category
(e.g. Ice cream vs frozen desserts)

5 tips to approach affordability reformulation

1

Understand the cost drivers in your recipe

- Ingredient prices can fluctuate strongly over time
- Think of eggs, sugar, oils, fruits, (dairy) proteins, gelatin...

Cargill keeps you abreast of important raw material price changes and can advise suitable replacement ingredients



2

Approach ingredient substitution holistically

Specific ingredients have multiple functionalities

- Think of eggs which serve as an emulsifier but also bring color, taste and texture, or sugar that brings sweetness, but also prolongs shelf life and adds bulk

Cargill supports to replace the full functionality of the ingredient by helping to find the right single ingredient or functional systems



3

Take a total cost-in-use approach

- Full recipe cost
- Storage & transport
- Process optimization
- Shelf life extension

Cargill helps you minimize ingredient replacement impact, and can support in optimizing transport & storage costs



4

Find additional value

Ingredient replacements can also bring value to consumers

- Think of vegan (egg-free) mayonnaise or improved Nutri-score dairy desserts

Cargill helps you understand consumer trends via proprietary TRENDtracker™ and INGREDIENTracker™ research



5

Be agile

Partner with knowledgeable ingredient suppliers, who have the broad ingredient & application expertise to help support your brief, no matter how challenging

Cargill can work with your R&D in a supporting or leading role, leveraging our facilities, know-how and application insights



Healthier reformulation using Nutri-score as example labeling

What is Nutri-score?

- Nutri-score is one of the available **nutrition labels** that was selected by the **French** government in March 2017 to be displayed on food products
- It is also known as the **5-Color Nutrition label or 5-CNL**
 - It was created by Santé Publique France, the French public health agency, based on the work of Pr. Serge Hercberg from University of Paris 13 Nord.
- It relies on the computation of a nutrient profiling system derived from the **United Kingdom** Food Standards Agency nutrient profiling system (FSA score)
- It has also been recommended by **Belgian, Spanish, German and Dutch** authorities, and is welcomed by the **World Health Organization**. The **European Commission** will look into the development of a pan-European mandatory scheme in 2022

*Nutri-score is used for example purposes throughout this deck. Cargill can provide nutritional information to customers based on the labeling scheme they use.



How to calculate?

- Nutritional score for food products relies on the calculation of a **single overall score** that accounts for the following for every food product:
 - N: a “negative” component
 - P: a “positive” component
- Calculation is performed the same for all food products **except** cheeses, vegetable and animal fats, and drinks

Nutritional score = total N points - total P points

The lower the score the better!

The N-component

The **N component** corresponds to the **sum of the points** accumulated (from 0 to 10) based on the food product's nutritional composition:

- energy density
- saturated fatty acid (SFA) content
- amount of simple sugars
- amount of salts

It can range from 0 to 40, and the lower the score the better

Points	Energy density (kJ/100g)	Saturated fats (g/100g)	Simple sugars (g/100g)	Sodium (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

The P-component

The **P component** corresponds to the **sum of the points** accumulated (from 0 to 5) based on the amount of fruits, vegetables, pulses, nuts and rapeseed, walnut and olive oils in the food product:

- amount of vitamins
- amount of fibres
- amount of proteins

It can range from 0 to 15, and the higher the score the better

Points	Fruits, vegetables, nuts ...& olive oils (%)	Fibres (g/100g)	Proteins (g/100g)
0	<= 40	<= 0.9	<= 1.6
1	> 40	> 0.9	> 1.6
2	> 60	> 1.9	> 3.2
3	-	> 2.8	> 4.8
4	-	> 3.7	> 6.4
5	> 80	> 4.7	> 8

Scores

Results are expressed in

- a score from -15 (the best) to +40 (the worst) and
- in a class (A-B-C-D-E)

5 different “classes”:

Class	Score ranges	Color
A	Min to -1	Dark green
B	0 - 2	Light green
C	3 - 10	Light orange
D	11 - 18	Orange
E	19 - Max	Dark orange



Healthiness increases when
improving Nutri-score

How to calculate Nutri-score?

$$\text{Nutri-score} = \text{total N points} - \text{total P points}$$

Specific rules:

- **If N-component < 11 points:** the nutritional score is equal to the total N component points from which is subtracted the total for the P component.
- **If N-component \geq 11 points,** and
 - If the total points for “Fruits, vegetables, pulses, nuts, and rapeseed, walnut and olive oils” =5, then the nutritional score is equal to the total N component points from which is subtracted the total for the P component
 - If the total points for “Fruits, vegetables, pulses, nuts, and rapeseed, walnut and olive oils” is < 5, then the nutritional score is equal to the total N component points from which is subtracted the sum of the points for “fibres” and “Fruits, vegetables, pulses, nuts, and rapeseed, walnut and olive oils”. In this case, the protein content is therefore **not** taken into account in the calculation

Specific case:

- **Cheeses:** The score is calculated by taking the protein content into account whether or not the total N points are \geq 11

Useful links

Nutri-score calculation Excel tool

- Fill the yellow cells in g for 100 g
- Salt (NACL) in **mg** for 100g
- Score is automatically calculated



Nutri-Score Usage
Reglement

- https://survey.anses.fr/SurveyServer/s/formation7/Oqali_Suivi_Nutri_Score/questionnaire.htm

For brands distributed in France, exclusively or otherwise, the Industry actor must be ready to transmit the requested files to the Food Quality Observatory (OQALI), within the time frame allowed (see Article 6.9 of this usage regulation), via this link

- https://www.demarches-simplifiees.fr/commencer/enregistrement_nutri-score

Any eligible person pursuant to Article 5.1 of the Usage regulation who wishes to use the Logo must register on this website

- <https://www.demarches-simplifiees.fr/commencer/registration-for-brands-distributed-abroad-only>

Industry actors wishing to register a brand marketed exclusively outside France may register from the procedure called "Registration procedure for the operator to obtain the right to use the registered collective trademark Nutri-Score"

A green moss arrow pointing up and right, resting on a wooden surface. The arrow is made of dense, vibrant green moss and is positioned on the left side of the image. The wooden surface has a natural grain pattern and a warm, brownish tone. A semi-transparent white box with rounded corners is overlaid on the right side of the image, containing the text.

**Cargill – Your
partner in
affordable
solutions**

Partnering with Cargill

Broad ingredient toolbox

Single ingredients and blended solutions to answer the most challenging briefs



Consumer Understanding

Broad overview of trends and proprietary consumer insights available



Technical expertise

Deep formulation & application insights to meet consumers' needs and grow your brand profitability



Go beyond

Our nutrition and regulatory experts can help advise on labeling, nutrition, sensory and more



Helping the world *thrive*