



Tortilla market development & innovation opportunities

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Megatrends

We are facing climate change, increased concern for health & wellbeing while dealing with transformations in our way of living.



A Sustainable Future

- Changing Climate
- Food Security & Safety
- Resource Constraints



Pursuit of Health & Happiness

- Growing & Aging Population
- Nutrition
- Noncommunicable diseases



The Transformation Age

- Population growth
- Digital Transformation
- Polarisation

Megatrends

Megatrends drive shift in consumer behaviour, which in it turn drives innovation in the food & beverage industry

Megatrend Drivers

Major political, economic, sociological, environmental and technological forces driving change globally



Consumer Trends

Macrotrends in consumer lifestyles, attitudes and consumption behaviour



Food & Beverage Trends

Future innovation opportunities for food and beverage: Innova's annual Top 10 Trends



Uncertainty and Volatility



Pursuit of Health & Happiness



The Transformation Age



A Sustainable Future



Value of Connection



Home-centric Living



Savvy Shopping



Healthcare to Self-care



Wholesome Enjoyment



Ingredients take the Spotlight



Nurturing Nature



Prioritizing Prevention



The Rise of Applied Offerings



Local goes Global



Home Kitchen Heroes



Indulging in Health



Oceans of Possibilities



Quenching the Future



Minimizing the Noise



Consumer Trends | Home-Centric Living

With our busy lifestyles, we enjoy our me-time at home, or spending it with our family and friends to connect.



Single-person households

Projected to grow 35% this decade to nearly 1 in 4 households globally.



Convenience

21% of consumers used convenience foods more in the past 12 months because they were cooking at home more.



“From scratch”

Consumers cooking from scratch more need enablers to save resources and time.

We are digitally smart consumers looking for ways to save money with benefits for planet & pocket.



Going digital

Digital platforms cater to tech savvy consumers through **easily accessible** and **affordable** solutions.

20%

are shopping online to reduce fuel costs.



Reducing waste

Consumers are looking to **save money** by reducing waste.

45%

are minimizing food waste for financial reasons.



Affordable food

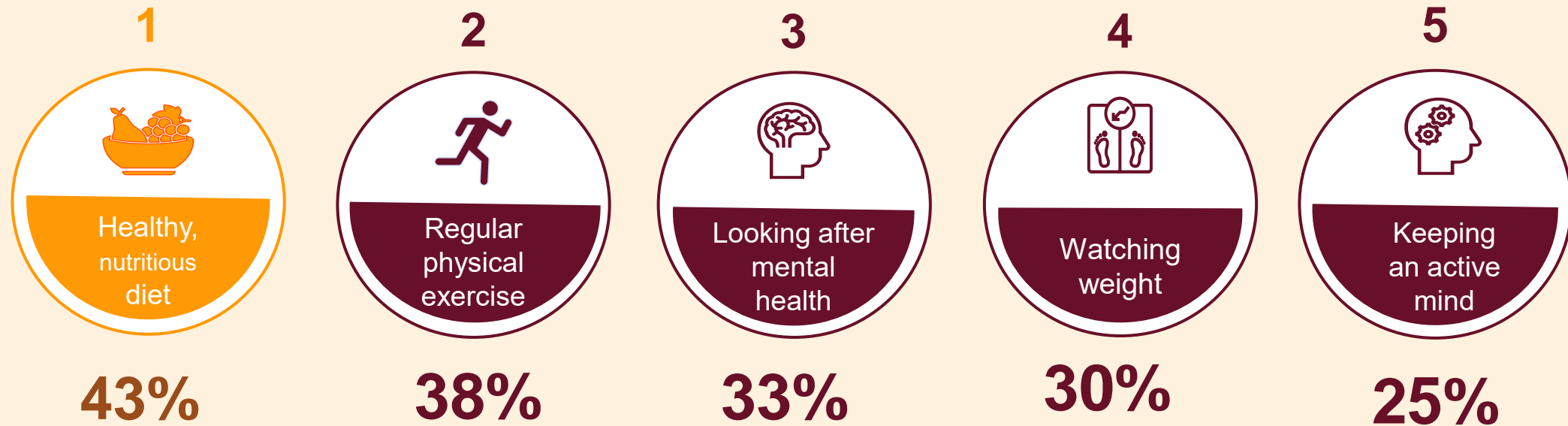
2 in 5 consumers globally are shopping in cheaper stores.

#1 reason

for cooking from scratch is to save money.

We want to feel good, look good and pay more attention to prevention to age in a healthy way.

Consumers see adopting a healthy, nutritious diet as the #1 priority to living healthily



Healthier living top five consumer actions

Consumer Trends | Ingredients Take the Spotlight

Consumers are getting more conscious about the ingredients in the products they consume.



Cleaner label

Brands and retailers are responding through research into **cleaner label ingredients** and **product reformulation**.



Protein revolution

More than **1 in 5** consumers globally say that the bakery category is their preferred protein source.



Functional food

Opportunities for growth in functional food and beverage. Hydration, sleep, gut health and immunity are top purchased functions.

1 in 4
aged 55+

desire functional food and beverages to age well

Add category drivers Spain

1. Better-for-you

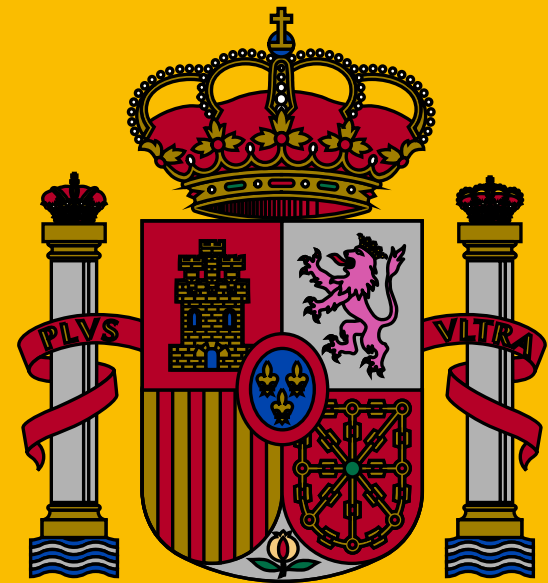
The current focus for the Spanish consumer is on less sugar and fat. Compared to the global average less emphasis on positive nutrition, e.g. high protein.

2. Taste is key

Top 3 purchase drivers: taste, cost and brand

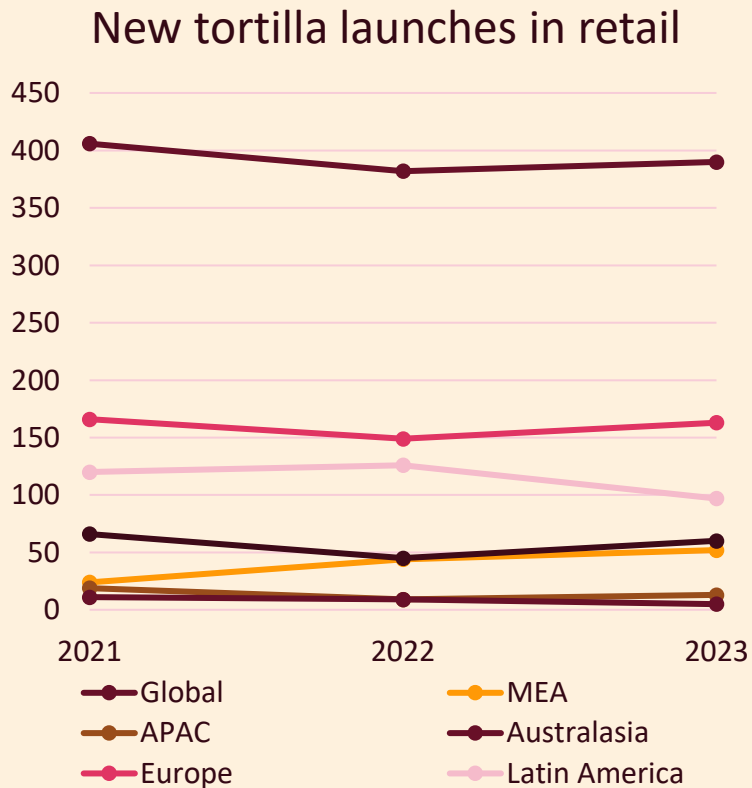
3. Local and traditional

Spanish consumers pay more attention than the average global consumer on traditional products and local supply (26% of consumers vs 19%)



Tortilla market trends

New product launches in retail are stable in most regions, although at a country levels differences are observed.



Top countries with increase in launch activity

- 1) United Kingdom
- 2) Spain
- 3) Canada



Top countries with decrease in launch activity

- 1) Netherlands
- 2) Belgium
- 3) Costa Rica
- 4) Mexico



Tortilla market trends

Strong regional differences are observed in product claims

| | Europe | NA | LATAM |
|----|----------------------------|----------------------------|----------------------------|
| 1 | Vegan | Kosher | Gluten Free |
| 2 | No Additives/Preservatives | GMO Free | High/Source of Fibre |
| 3 | Vegetarian | Traditional | Low/No/Reduced Cholesterol |
| 4 | High/Source of Fibre | Low/No/Reduced Cholesterol | Traditional |
| 5 | Wholegrain | No Additives/Preservatives | Wholegrain |
| 6 | No Added Sugar | No Trans Fats | High/Source of Protein |
| 7 | Economy | Gluten Free | No Trans Fats |
| 8 | Gluten Free | High/Source of Fibre | Vegan |
| 9 | Halal | Organic | Low/No/Reduced Fat |
| 10 | Organic | Vegan | Low Sugar |
| 11 | Palm Oil Free | Wholegrain | No Added Sugar |
| 12 | Lactose Free | Low/No/Reduced Sodium | Natural |
| 13 | High/Source of Protein | Indulgent & Premium | No Additives/Preservatives |
| 14 | Indulgent & Premium | Low/No/Reduced Fat | Kosher |
| 15 | Low/No/Reduced Carb | Vegetarian | Indulgent & Premium |

Tortilla market trends

There is an opportunity in tortilla in Spain for claims on fibre and no added sugar

| | Europe - Tortilla | Spain - Tortilla | Spain - Bread |
|----|----------------------------|----------------------------|----------------------------|
| 1 | Vegan | Vegan | High/Source of Fibre |
| 2 | No Additives/Preservatives | No Additives/Preservatives | Lactose Free |
| 3 | Vegetarian | Gluten Free | High/Source of Protein |
| 4 | High/Source of Fibre | Organic | Wholegrain |
| 5 | Wholegrain | Wholegrain | No Added Sugar |
| 6 | No Added Sugar* | High/Source of Fibre | Gluten Free |
| 7 | Economy | Low/No/Reduced Sodium | No Additives/Preservatives |
| 8 | Gluten Free | Lactose Free | Vegan |
| 9 | Halal | Natural | Organic |
| 10 | Organic | No Trans Fats | Economy |

* Most tortillas in Spain don't contain added sugar

Tortilla market trends

High protein tortillas can be found around the world: a source of inspiration with different levels of protein, pricing and positioning.



Australia | Sep '24 | €5.99/kg

- No artificial colours and flavours.
- 4.5 health star rating. Sports dietitian approved.
- Made from wholemeal. High in protein (15.8g). High in fibre. Very high in wholegrain.
- Made in Australia, ≥75% Australian ingredients.
- Sustainable palm oil.
- Packed with high quality protein and dietary fiber.



UK | May '24 | €5.71/kg

- High protein (10g), wheat & pea
- Suitable for vegans. Source of vitamin D
- Country of origin: UK



Germany | Aug '24 | €10.91/kg

- Low carb.
- High fiber.
- High protein (18g).
- Suitable for vegans.
- Nutriscore A.
- EU wheat flour.

Tortilla market trends

The Americas are moving to “zero net carb”, while Europe and ANZ show more claims on low carb combined with high protein.



USA | Aug '24 | €13.12/kg

- Keto certified
- 0g net carbs per serving, 60 calories per serving.
- No sucralose or aspartame.
- Sustainably sourced palm oil.
- Made with extra virgin olive oil
- Cholesterol free. Nut free.
- Made in USA.
- Protein: 9.5g (no claim)



Mexico | Apr '24 | price not listed

- No added sugars.
- 7.2g of fiber per tortilla.
- 23.4kcal per tortilla
- Excess in saturated fat and sodium.



Spain | Jun '23 | €15.11/kg

- The original protein bread certified.
- High protein.
- Low carb.
- Nutriscore A.
- Contains 9g protein per tortilla, 14g carbohydrates per tortilla, 2.5g fiber per tortilla, less than 0.7g sugar per tortilla.

Tortilla market trends

Product innovations around the world show versatility in claims and positioning. Most launches feature a health positioning.



Australia | Feb '24 | €8.60/kg

- 96kcal calories per 32g unfilled tortilla.
- Preservative free
- Produced in Spain



Netherlands | Sep '23 | €14.95/kg

- Freshly prepared
- 45% real vegetables
- Wholewheat
- 92 kcal per tortilla, less kcal than a regular whole wheat wrap
- Rich in fibre (8g)
- Nutriscore A



Brazil | Mar '24 | €11.60/kg

- Chocolate flavour

About AB Mauri | Global Technology Centre

Global Technology Centre in Etten-Leur, the Netherlands with 3000m² dedicated for research, development & application for the best response to the customer.



The Global Technology Centre in the Netherlands



Research & Development



Sensory



Application



Industrial Bakery Pilot Plant

AB Mauri Capabilities for tortilla producers

Our bespoke tortilla solutions are designed to align with your strategy and support in delivering on the expectations of your customers and consumers.

AB Mauri's tortilla capabilities & approach

- Global application capability in tortilla
- Offer bespoke solutions taking into account:
 - Product requirements (labelling, functionality, nutritional values, sensory requirements)
 - Type of Packaging (Ambient, Frozen, MAP)
 - Type of production line
 - Ease of supply of raw material
 - Qualification of the workforce
 - Labor cost
- Training can be offered in the Global Technology Centre, using pilot tortilla line and other equipment.



AB Mauri Capabilities for tortilla producers

What makes a good tortilla?

Diameter



Fluffiness



Opacity



Shelf life



Shape



Edges



Stickiness



Rollability



Tortilla solutions portfolio

AB Mauri's tortilla portfolio consists of three categories to meet local needs

SUPREMO
TORTILLA SOLUTIONS

Building blocks

- Enzymes systems
- Anti-stickiness agents
- Dough relaxer
- Mould inhibitors
- Leavening agents
- Plant Fibres
- Salt replacer

Improver solutions

- Softening solutions
- Dough improvers
- Shelf-life extension
- Clean label solutions
- Acidulants
- Mould inhibitors

Total tortilla mixes

- Retail
- Food Service / QSR
- Bespoke solutions

Innovation opportunities

How to communicate “Better-for-You” to the consumer?

In general, there are 3 possibilities for this:

1. Nutritional table
2. Front-of-Pack Nutritional labelling, for example Nutri-Score
3. Nutritional claims, regulated in EU Regulation 1924/2006



consumers globally say that they **ALWAYS look at ingredients** of interest on the product pack.



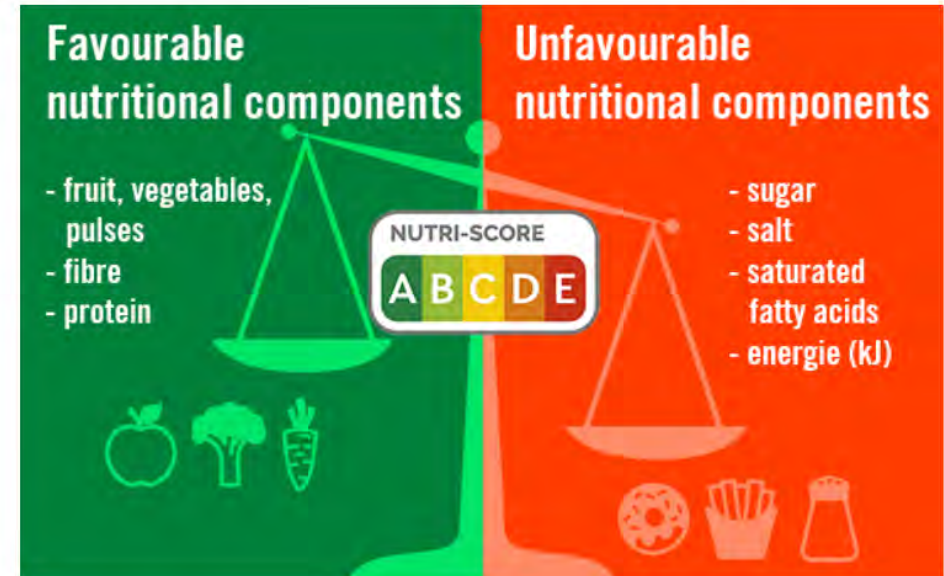
Innovation opportunities

Front Of Pack (FOP) labelling is adopted to make it easier for consumers to make a healthier choice, but this looks different across the world.



What is Nutri-Score?

- Nutri-Score was developed in France as.
- It is a five-colour nutrition label and nutritional rating system and an attempt to simplify the nutritional rating system demonstrating the overall nutritional value of food products.
- Goal is to operate as a helping instrument to stimulate healthier choices for a broad group of consumers. In parallel, it motivates companies to improve their products.
- Based on an algorithm, points are allocated based on favourable and unfavourable nutritional components. The total number of points will determine the score from A-E.





Nutri-Score 2023 - comparing favourable and unfavourable nutritional components

Nutritionally "unfavourable" nutritional values **N** are offset against "favourable" nutritional values **P** (Nutri-Score = **N** – **P**). The resulting score gives the food's Nutri-Score according to the evaluation scheme.

Innovation opportunities

Examples Nutriscore - bread vs Tortilla (Dutch market)

| | |
|---|---|
|  NUTRI-SCORE A B C D E V 1.49 per stuk + |  NUTRI-SCORE A B C D E V 1.89 per stuk + |
|---|---|

| | |
|---|---|
|  NUTRI-SCORE A B C D E V 1.99 per stuk + |  NUTRI-SCORE A B C D E V 1.79 per stuk + |
|---|---|

| |
|---|
|  NUTRI-SCORE A B C D E V BIO 1.45 240 g + |
|---|

| | |
|---|---|
|  NUTRI-SCORE A B C D E V 0.95 320 g + |  NUTRI-SCORE A B C D E V 1.49 320 g + |
|---|---|

| |
|---|
|  NUTRI-SCORE A B C D E V 0.99 370 g + |
|---|

Favourable:

- Fibre/Wholemeal
- Vegetables
- Protein


Unfavourable:

- Salt
- Sugar
- Saturated fat

Innovation opportunities

Better-for-you concepts: Tortilla Nutri-Score A Premix

| Production Recipe (Ambient) | |
|--|-------------|
| Components | % |
| White wheat flour | 100% |
| Wholemeal flour* | |
| Water | 50 - 55% |
| Rapeseed oil | 7.5% |
| Glycerin | 4.0% |
| MAURI TORTILLA RTU MIX (QSR) | 7.5% |
| AB-COR DOUGH RELAXER (function of flour quality) | 0.1% |
| * Whole meal flour should be replaced with Special Wheat Bran (stable) | |

|  NUTRI-SCORE | Retail Mauri Mix | Retail Mauri Mix Score A |
|---|------------------|--------------------------|
| Energy (kJ)/100g | 810 | 795 |
| Energy (kCal)/100g | 194 | 190 |
| Total Fat | 6.6 | 6.2 |
| <i>Of which saturated</i> | 1.1 | 1.0 |
| Carbohydrates | 44.5 | 36.5 |
| Salt | 0.8 | 0.7 |
| Dietary fibre | 1.4 | 6.2 |
| Protein | 6.9 | 7.7 |
| Nutri-Score | B | A |

** Ingredient list: whole wheat flour, fat, glycerin, wheat fibre, acidulant, baking agent, preservatives, salt, enzymes

Better-for-you concepts: nutritional claims

- 'Nutrition claim' means any claim which states, suggests or implies that a food has particular beneficial nutritional properties due to:
- The energy (calorific value) it:
 - a) Provides
 - b) provides at a reduced or increased rate or
 - c) does not provide
- The nutrients or other substances it:
 - a) contains
 - b) contains in reduced or increased proportions or
 - c) does not contain

CLAIM APPROACH COMPLY TO EU Regulation 1924/2006

- SOURCE OF [NAME OF VITAMIN/S] AND/OR [NAME OF MINERAL/S]
- HIGH [NAME OF VITAMIN/S] AND/OR [NAME OF MINERAL/S]
- CONTAINS [NAME OF THE NUTRIENT OR OTHER SUBSTANCE]
- INCREASED [NAME OF THE NUTRIENT]
- REDUCED [NAME OF THE NUTRIENT]
- LIGHT/LITE
- NATURALLY/NATURAL

Innovation opportunities

Better-for-you concepts: nutritional claims

- Examples of nutritional claims for tortilla:
 - High protein, source of fibre
 - High protein, high fibre tortilla
 - High protein, high fibre, salt reduced

How to achieve a better nutritional profile
In your tortilla?



STEP 1: Define your nutritional profile

- Example : high protein, high fibre, salt reduced

HIGH PROTEIN

A claim that a food is high in protein, and any claim likely to have the same meaning for the consumer, may only be made **where at least 20% of the energy value of the food is provided by protein.**

REDUCED [NAME OF THE NUTRIENT]

A claim stating that the content in one or more nutrients has been reduced, and any claim likely to have the same meaning for the consumer, may only be made where the **reduction in content is at least 30%** compared to a similar product, except for micronutrients, where a 10 % difference in the reference values as set in Directive 90/496/EEC shall be acceptable, and for **sodium, or the equivalent value for salt, where a 25% difference** shall be acceptable

SOURCE OF FIBRE

A claim that a food is a source of fibre, and any claim likely to have the same meaning for the consumer, may only be made where the product contains at least 3 g of fibre per 100 g or at least 1,5 g of fibre per 100 kcal.

HIGH FIBRE

A claim that a food is high in fibre, and any claim likely to have the same meaning for the consumer, may only be made where **the product contains at least 6 g of fibre per 100 g or at least 3 g of fibre per 100 kcal.**

STEP 2: find reference values per country

- Country-references are available for calculation



RIVM De zorg voor morgen begint vandaag

Home NEVO Online

Home > NEVO Online

Op deze website staan gegevens over energie en voedingsstoffen van voedingsmiddelen: het Nederlands Voedingsstoffenbestand (NEVO). Via de knop Home vindt u meer over de achtergrond en gebruik van NEVO.

| NEVO-code | Voedingsmiddel | kJ (kJ) | kcal (kcal) | Water (g) | Eiwit (g) | Vet (g) | Koolhydraten (g) | Vezel (g) | Alcohol (g) | Organische zuren (g) | As (g) |
|-----------|------------------------|---------|-------------|-----------|-----------|---------|------------------|-----------|-------------|----------------------|--------|
| 2359 | Wrap/tortilla naturel | 1332 | 316 | 27,8 | 9,5 | 6,9 | 52,5 | 3 | 0 | | 0,4 |
| 5482 | Wrap/tortilla volkoren | 1216 | 288 | 29,2 | 9,3 | 5 | 47,7 | 8 | 0 | | 0,9 |

Source of protein

Source of fibre

High fibre

| NEVO-code | Voedingsmiddel | kJ (kJ) | kcal (kcal) | Water (g) | Eiwit (g) | Vet (g) | Koolhydraten (g) | Vezel (g) | Alcohol (g) | Organische zuren (g) | As (g) |
|-----------|--------------------------|---------|-------------|-----------|-----------|---------|------------------|-----------|-------------|----------------------|--------|
| 248 | Tarwebrood wit water | 1046 | 247 | 37,3 | 9 | 1,6 | 47,8 | 2,5 | 0 | | 1,8 |
| 2811 | Tarwebrood volkoren fijn | 985 | 233 | 38,9 | 10,9 | 2,1 | 39,3 | 6,6 | 0 | | 2,2 |

Innovation opportunities

STEP 3: Prepare theoretical calculation

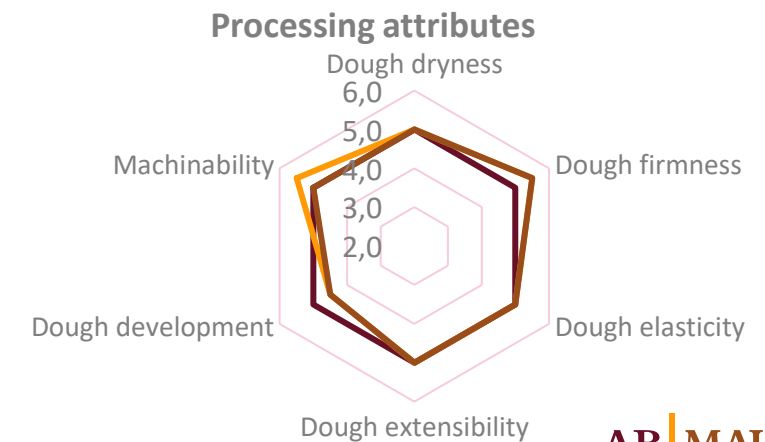
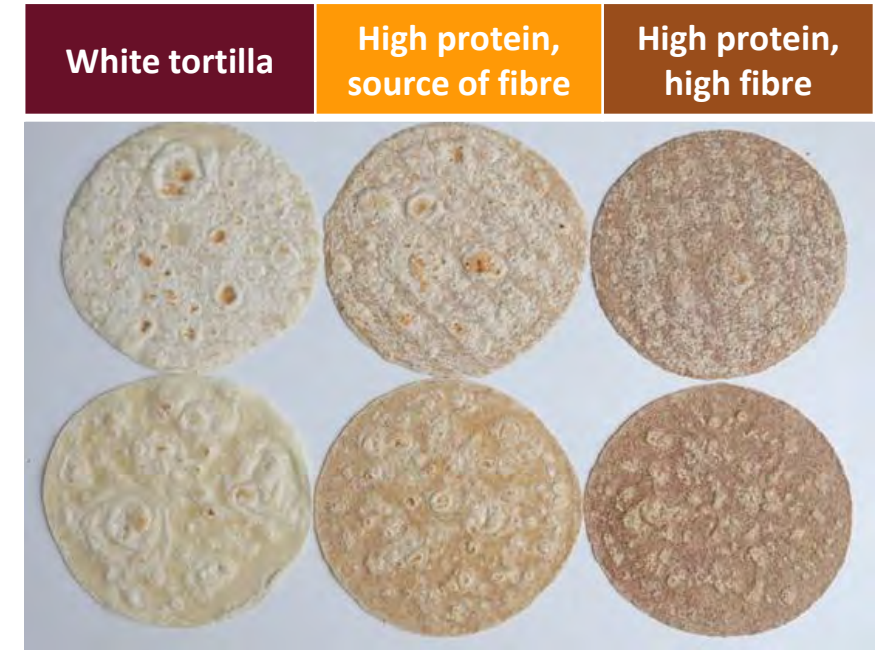
|  NUTRI-SCORE | Retail Mauri Mix | Retail Mauri Mix Score A | High protein, source of fibre | High protein, high fibre |
|---|------------------|--------------------------|-------------------------------|--------------------------|
| Energy (kJ)/100g | 810 | 795 | 1342 | 1314 |
| Energy (kCal)/100g | 194 | 190 | 320 | 313 |
| Total Fat | 6.6 | 6.2 | 7.6 | 7.9 |
| <i>Of which saturated</i> | 1.1 | 1.0 | 1.2 | 1.3 |
| Carbohydrates | 44.5 | 36.5 | 36.9 | 27.4 |
| Salt | 0.8 | 0.7 | 0.8 | 0.8 |
| Dietary fibre | 1.4 | 6.2 | 4.4 | 7.9 |
| Protein | 6.9 | 7.7 | 17.1 | 19.1 |
| Nutri-Score | B | A | A | A |

AB Mauri has developed a tool to support customers with this approach

Innovation opportunities

STEP 4: Processing to test in real condition

| Recipe | White tortilla | High protein, source of fibre | High protein, high fibre |
|-------------------------------------|----------------|-------------------------------|--------------------------|
| Wheat flour | 100% | 100% | |
| Wholemeal flour | | | 100% |
| Water | 48% | 51% | 52% |
| Rapeseed oil | 5.0% | 7.5% | 7.5% |
| Palm fat | 5.0% | - | - |
| Glycerin | 6.0% | 5.0% | 5.0% |
| AB Mauri Tortilla RTU mix (QSR) | 7.5% | 7.5% | 7.5% |
| AB Mauri Plant protein tortilla mix | - | 23% | 23% |



FINAL STEP: validation of nutritional profile and tortilla evaluation

Validated claims by nutrition analysis!

| | By calculation | By lab analysis |
|--------------------|----------------|-----------------|
| Energy (kJ)/100g | 1314 | 1109 |
| Energy (kCal)/100g | 313 | 264 |
| Total Fat | 7.9 | 7.4 |
| Carbohydrates | 27.4 | 26.6 |
| Dietary fibre | 7.9 | 7.9 |
| Protein | 19.1 | 18.7 |
| Nutri-Score | A | A |

Kcal protein = 75kCal > 20% x 264 kcal = 55 Kcal

Total fibre = 7,9 > 6% on dry mater

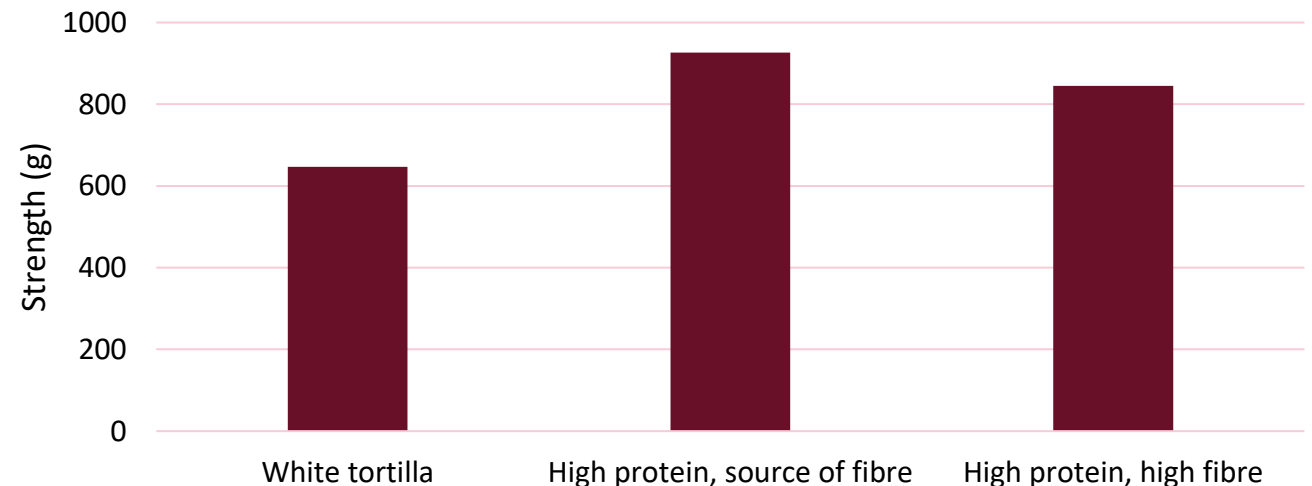
Claim High protein = Energy Protein gives 20% of total kCal

Claim High Fiber = total fiber > 7% on dry mater

Claim less Carb = -30% of regular value

| | pH | A _w | Moisture | Diameter | Strength (g) | Extensibility (mm) |
|-------------------------------|------|----------------|----------|----------|--------------|--------------------|
| White tortilla | 5.29 | 0.88 | 28.7 | 21.0 | 647 | 23.6 |
| High protein, source of fibre | 5.05 | 0.89 | 31.2 | 21.0 | 926 | 28.0 |
| High protein, high fibre | 5.07 | 0.90 | 33.0 | 19.4 | 845 | 28.6 |

Tortilla strength



Innovation opportunities

We can support you with (re)formulation of your tortillas to achieve the right processability and end-product characteristics your consumers will love.

Co-developing successful concepts



Trends



New product concepts



Insights



Joint innovation

Product enhancement



Softness & freshness



Taste & texture



Nutritional values



Shelf-life extension

Successfully implementing manufacturing solutions



Technical support



Sharing knowledge



Trouble shooting



Validation of production process