









Discover our gluten-free rice, pulses & cereals ingredients

Herba Ingredients

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Ebro Foods

- Subsidiaries distributed over 25 countries in Europe, America, Asia, Northern Africa and a portfolio of over 60 brands.
- World leaders in the branded rice sector, the second branded pasta manufacturer worldwide.
- Focused on the development of added value applications for the retail and industrial markets.
- Very strong position in Europe and North America
- Quoted on the Madrid Stock Exchange Market





ingredients





Herba Ingredients

- Leading European rice, pulse and quinoa ingredient producer
- Wide range of production technologies
- IFS, Halal, Kosher, non-GMO, and Bio certificates available



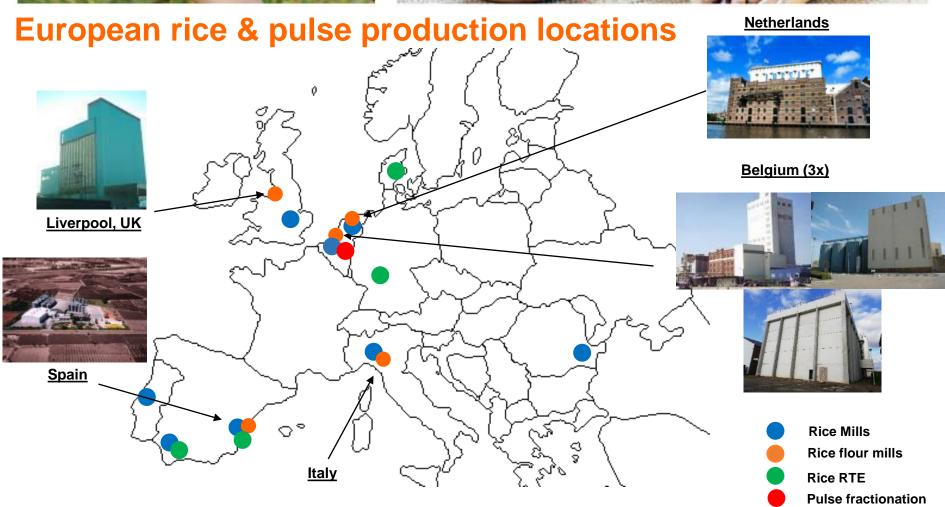


- Supported by: Own rice fields in Spain
 - In house R&D departments and pilot plants
 - Big in house buffer stocks and raw material access













Different in-house technologies

White rice

Brown rice

Organic/BF rice

Stabilized rice bran

Quinoa

Pea

Faba beans

Lentils, etc.



Milling and sieving

Starch extraction

Ultrafine milling

Heat treatments

Pregelatinization

Extrusion

Air classification



>100 different functional allergen-free ingredients



Allergen-free

production facilities





Why rice ingredients?

- Good image
- Broad range of functional properties:
 - Thickening & stabilizing
 - Texture enhancement
 - Carrier
 - Anti-sticking
 - **0** ...
- Bland taste & neutral color/appearance
- GMO-free
- Allergen-free, ideal for gluten free foods ao.
- Affordability
- Clean label natural solution
- Excellent digestibility
- Reduces acrylamide formation
- Whole grain solutions



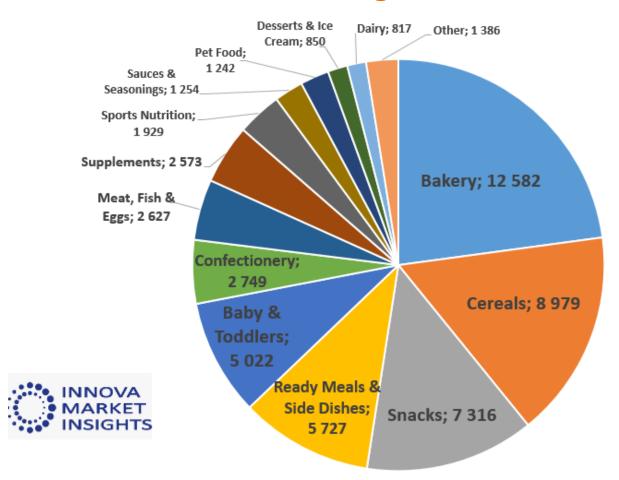








Product launches containing rice flour in the last 5 years



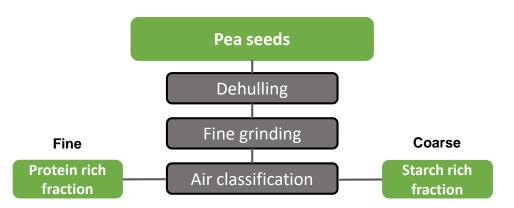






Concentrates

Physical separation of starch and protein

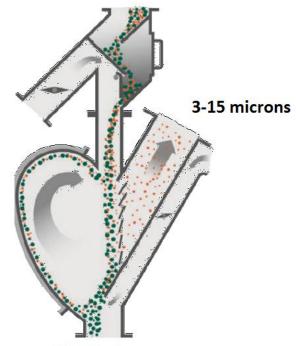


Concentrates

- No chemicals needed
- No water usage
- No drying energy needed
- Protein concentrates of 55% and 65% for pea and faba bean respectively
- Starch fractions with 12-15% protein

Isolates

- · Separation using chemicals
- · High water usage for rinsing
- Higher energy need to dry
- Protein isolates of 80%+ protein



10-50 microns







Functionality of the fractions

Fiber

Swelling capacity

viscosity

Protein

solubility

Emulsification

Foaming

Viscosity / gelation

Starch

Gelatinization

Retrogradation

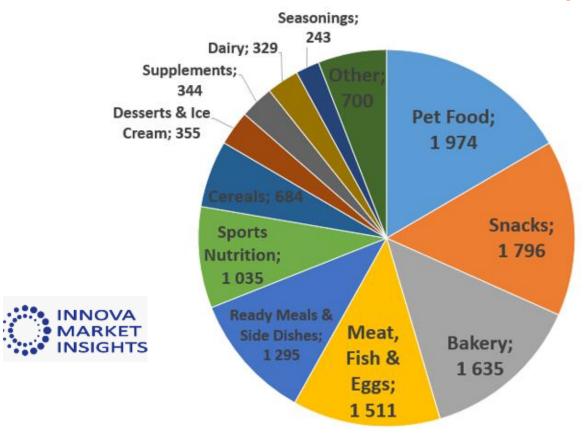
Viscosity /gelation







Product launches containing Pulse flours and concentrates in the last 5 years









Pulse ingredients





HerbaPRO®
Pea & faba bean
protein range



HerbaRICH®
Pea & faba bean
flour (also quinoa
flour)











Yellow Pea Fibre





- Outer pea fibre (>80% total fibre)
- > From the hull of the pea
- Used for nutritional enrichment, water binding and bulking (cookies, snacks, meat

2 ' ' ' '

Chemical composition	% (d.b.)
Crude fiber	57,1
TDF	88,1
Soluble fiber	4,5
Insoluble fiber	83,6
Lignin	1,1
Cellulose	62,6
Hemicellulose	12,1
Insoluble pectins	7,8







Happy to walk the journey together!









