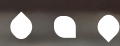




Limagrain
Ingredients



Naturally
Innovating
Solutions

bakery

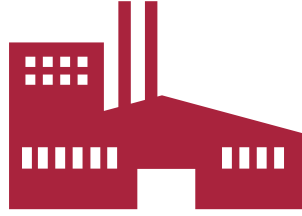
catalogue



■ Naturally Innovating

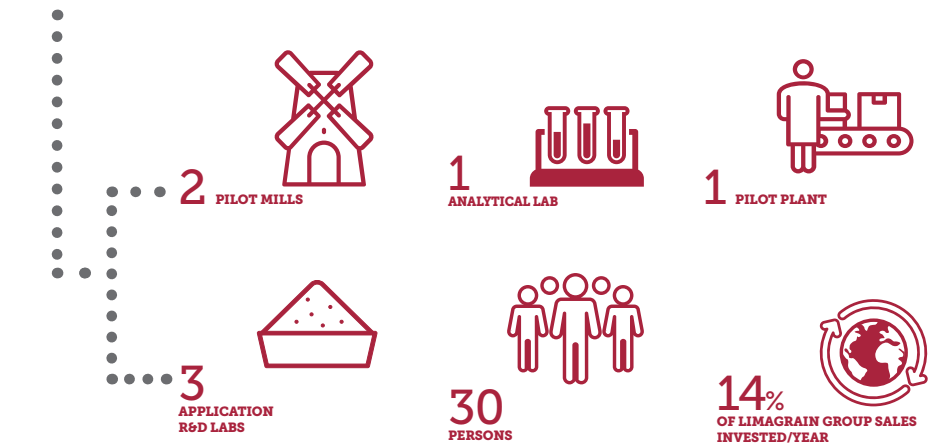


Industry expectations



- Control of food safety
- Innovation
- Control of costs
- Control of the processes

Our strengths



◆ ◆ ◆

We are all consumers and we all expect that industry provides us with healthier and tastier products from responsible integrated chains.

This is why Limagrain Ingredients' know-how makes so much sense! It develops and offers healthy and functional alternatives able to combine the technical, nutritional, and organoleptic qualities of products.



The R&D unit fulfills various assignments: research on new grains and new ingredients, development of industrial pilot programs in its laboratories and tailored made support for its customers.



For more than 30 years, Limagrain Ingredients' Clean Label expertise has allowed us to help our customers with their need for naturalness and nutrition.

Our ingredients allow products to preserve their texture and processability while also greatly reducing the number of ingredients.



INTEGRATED CHAIN COMMITMENT

- ✓ Traceability
- ✓ Consistency
- ✓ Functionality
- ✓ SMETA Certification
- ✓ Respect of standards

Market expectations



More pleasure

- Taste, texture, sensory experiences

Healthier

- More fibre, proteins
- Fat, salt, sugar reduction

More personalised

- Gluten free, vegan, Organic
- Babyfood

More convenient

- Extended shelf life, instant preparation

More natural

- Cereals, pulses
- Authenticity



Our solutions

Functional ingredients

- Fine and granulated functional flours (cereal and pulses)
- Clean Label solutions

Native Grits and flours

- Maize grits and flours
- Wheat flours
- Fibres range
- LifyWheat

Puffed or toasted ingredients & inclusions

- Puffed grains
- Toasted ingredients
- Pep's Balls



Improving texture, boosting nutrition, understanding process... our Innosense range and Clean Label solutions are dedicated to the bakery and pastry applications to meet your needs.



Explore new tastes, appearances and textures for your bakery and pastry products with our original range of puffed or toasted ingredients and inclusions.



Wheat and maize native flours from our integrated chain to offer our customers traceability and guarantee 100% reliable products.



Functional flours



Functional flours



Innosense is our brand of functional flours dedicated to human nutrition, result of the synergy between our cereal expertise and the mastery of our hydro-thermal processes.



For more than 30 years, our 100% Clean Label functional flours have been able to meet the major challenges of the food industry: optimisation of texture, nutrition and processes, or carrier solutions.



Innosense, a "flour" declaration for greater transparency, *naturally.*

● IMPROVING TEXTURE, BOOSTING NUTRITION, UNDERSTANDING PROCESS... *Naturally*

To better meet our customers' expectations, our Innosense ranges are dedicated to the bakery and pastry applications and needs. Whether you're looking for texturising solutions, carrier solutions or nutrition enhancement, there's an Innosense functional flour for your bakery or pastry product.

InnoSense
Texturiser

InnoSense
Process

InnoSense
Nutrition



Functional flours
for natural products




Toppings & Sprinkling




- Discover our solutions for toppings and sprinkling:
 - ✓ wide range of granulometry and controlled particle size
 - ✓ reduced dust content
 - ✓ no enzymatic activity
 - ✓ reduced microbial load
 - ✓ excellent flowability

French origin available depending on the reference.



All our solutions are **Clean Label**.

Sprinkling flours	
Innosense wheat 100 <i>For strong microbiological requirements</i>	
Innosense wheat 11401 <i>For strong microbiological requirements</i>	
Innosense wheat 11201 <i>For strong microbiological requirements</i>	
Innosense wheat H1 	

Granulated sprinkling flours	
Innosense wheat TM80 Innosense wheat 11601	Innosense whole maize
Innosense wheat TM40 Innosense wheat 11605	Innosense whole maize 11034 
Innosense wheat TM20	Innosense maize TM79 
Innosense wheat germ TM20	Innosense rice TM40 

InnoSense Nutrition



Functional flours
for natural products

French origin available depending on the ref.

All our solutions are **Clean Label**.

● All applications

	Our solutions	Recommended use	Protein content (g/100g)**	Fibre content (g/100g)**	Nutritional benefits
	Innosense rice 1000R		7,2	0,9	● Fat reduction
	Innosense yellow lentil Innosense yellow lentil TM40		23,9	5,6	● Protein intake
	Innosense wheat 1000R		8,6	3,3	● Fat reduction from 50 to 70%
	Innosense faba bean Innosense faba bean TM40		26,8	7,3	● Protein intake
	Innosense chickpea Innosense chickpea TM40		min 17,8	min 11,4	● Protein & fibre intake
	Innosense wheat WI		8,6	3,3	● Fat reduction in brownies
	Innosense wheat LV		10,2	1,4	● Sugar reduction
	Innosense wheat TM80 Innosense wheat 11601		10,4	3	● Fat reduction
	Innosense wheat germ 1050 Innosense wheat germ TM20		27,9	15	● Protein & fibre intake
	Innosense whole barley		9,9	16,4	● Protein & fibre intake ● Sugar reduction
	Innosense whole rye		8,9	16,8	● Fibre intake
	Innosense wheat bran fine* Innosense wheat bran medium*		min 14,8	min 38,8	● Fibre intake
	Innosense red bean Innosense red bean TM40		20,7	19,4	● Protein & fibre intake
	Innosense red lentil		min 24,6	min 6,8	● Protein intake
	Innosense green pea		21,1	10,7	● Protein & fibre intake

*We also have other fibre references : see p.15.

** These values are calculated from occasional analytical results and are only an indication.



Enhancing Nutrition



● Consumers are now looking for products that are more nutritional with a clear and understandable composition.

The Innosense Nutrition range meets this demand for better transparency.

● For protein and/or fibre enrichment, you can as well refer to our **puffed or toasted ingredients and inclusions** p.17)



Functional ingredients



Cereclean

■ Cereclean is an association of functional flour and fermented wheat flour to naturally extend the shelf life of your bakery products.

■ Thanks to a unique organic acids profile combined with a functional flour, Cereclean offers an array of benefits.

clean
label



+
improved
shelf life

2 references available:

■ Cereclean

■ Cereclean FR

made from 100% French
wheat flour 



To improve the
shelf life of your
bakery products

One *ingredient*, many *benefits*

- **Shelf life extender** to substitute calcium propionate, potassium sorbate, even alcohol
- **No impact on the texture** or other characteristics of the product
- **Reassuring labeling on the ingredient list:** "wheat flour, fermented wheat flour"
- **Easy-to-use** and **good processability**
- **Recommended applications:** sliced breads, brioches, soft tortillas, pastries...

Example of application	% on flour weight (bakers %)	Max % on dough weight
Prepacked sliced bread and rye bread	0,6 to 2 %	1,30 %
Energy reduced bread, partially baked prepacked bread, prepacked rolls, tortilla and pita, prepacked polsebrod, boller and dansk flutes	0,6 to 1,6 %	0,90 %
Prepacked bread	0,5 to 0,7 %	0,40 %
Prepacked fine bakery wares with a water activity of more than 0,65	0,6 to 1,6 %	0,90 %



clean
label

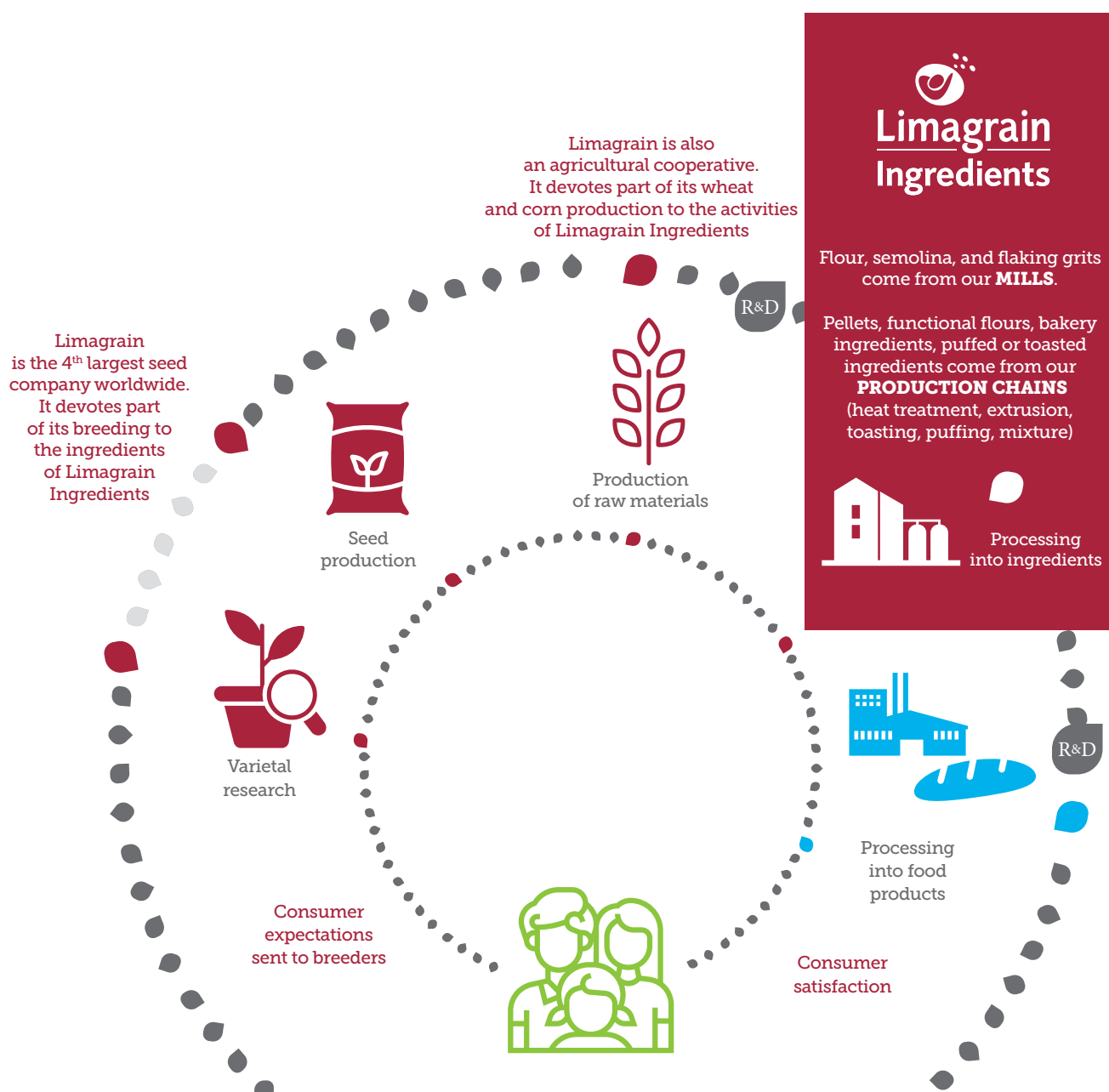


Our singularity: an integrated chain from breeding to processing

● Limagrain Ingredients is the only player on the market able to guarantee perfect mastery of its integrated chain, from breeding to production of the ingredients.

● Collaborating with Limagrain Ingredients means being assured of using trustworthy ingredients from responsible and sustainable integrated chains.

● It also means being assured that a field of possibilities is open for the creation and development of finished products.





Puffed or Toasted ingredients & inclusions



Presco puffed grains



To bring a little twist to your bakery and pastry products, the Presco puffed grains range can be used as inclusions and have several benefits.

The Presco process is a unique process developed and patented by Limagrain Ingredients.

■ Cereals are treated with steam under high pressure for 15 to 30 seconds.

■ When the pressure is suddenly reduced, the grains expand rapidly.

■ Different densities for faster or slower hydration and more or less pre-cooking



Your challenges, our solutions:

- A nutritional boost for your bakery and pastry products
- Visible markers and various cereal tastes
- Various textures dedicated to your needs
- To use as toppings or inclusions in many applications



■ Wheat



■ Durum Wheat



■ Dinkel Spelt



■ Rye



■ Barley



■ Rice



■ Dutch Quinoa



■ Millet



■ Sorghum



Puffed or Toasted ingredients & inclusions



Toasted ingredients

A source of ideas for exploring new tastes, appearances and textures for your bakery and pastry products. This range of crushed cereals and toasted ingredients adds crunchiness and originality to your products!



Your challenges, our solutions:

gluten
free

- Sensory experience with amazing tastes and textures
- Stand out with innovative ingredients
- Improve the nutritional profile of your bakery and pastry products

■ Toasted broken chickpea



- Unique taste without bitterness
- Crunchiness
- Rich in protein (24%)
- Rich in fibre (15%)
- Vegan and Allergen free

■ Nutricorn

Toasted maize germ from Limagrains Ingredients IP network



- High fibre content (20%)
- High protein content (18%)
- Magnesium (800mg/100g)
- Vegan and Allergen free

■ Toasted maize flour



- A nutty toasted taste
- Vegan and Allergen free

■ Toasted buckwheat



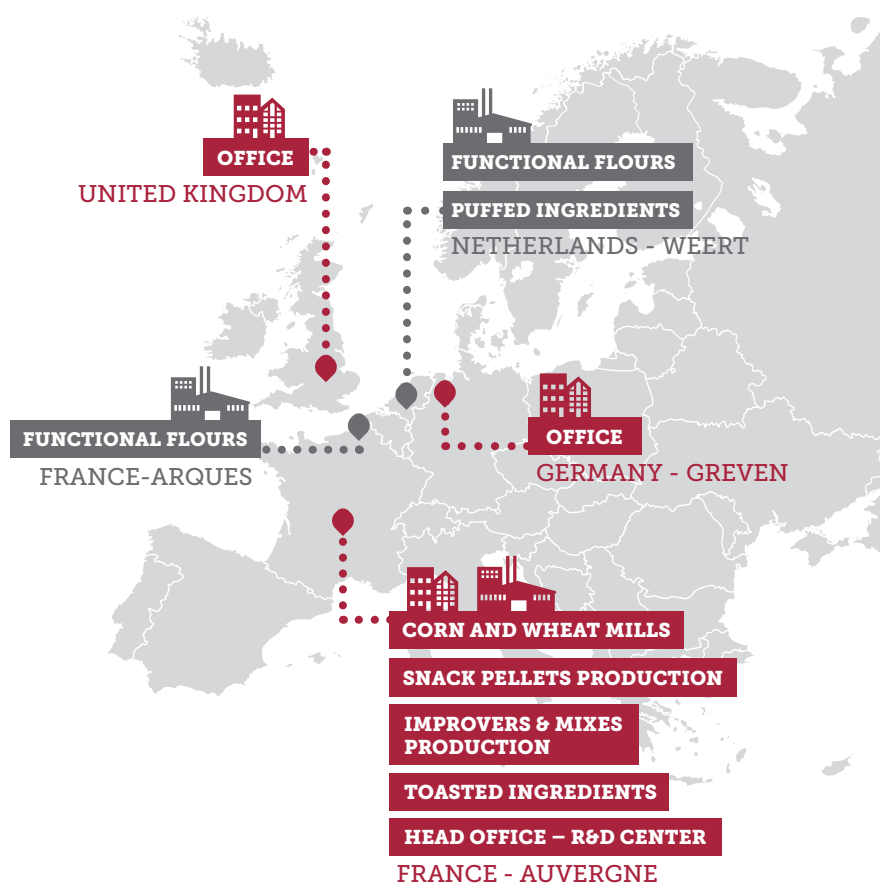
- Crunchy and tasty
- Low microbiology
- Vegan and Allergen free

Proud to be part of Limagrain

Limagrain is a French agricultural cooperative and the 4th largest seed company worldwide.

Its control of agricultural and industrial challenges, international reach, and massive annual investment in R&D feed into and inspire its subsidiary, Limagrain Ingredients, making it unique.

Being part of Limagrain means having a global awareness of the challenges faced by the agri-food industry, today and tomorrow. It also means having the human resources, material and technological capacity to anticipate, prepare for, and respond to them.



■ Naturally Innovating

www.limagrain-ingredients.com