

# Proteins set the trend

The use of proteins for weight management and energy intake is definitely far from being a new concept. It is, in fact, one of the oldest food trends - see Kellogg's Special K with a "high protein" message in the '50s (source New Nutrition Business, 2013). Overshadowed for a while by the fat-free, sugar-free, etc., the "protein" trend is back. The consequence: providers of proteins (of both plant and animal origin) are involved in many developments.



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Danio, snacks Danone: the protein wave surges ...

**T**here is a brand new Danone TV ad for Danio, a product between cottage cheese and yoghurt, available in supermarkets since the beginning of the year. Its target: the snack - Danio tries to replicate the American success of the high-protein "Greek yoghurt", without having the right to be called "yoghurt" and "Greek". Its strategy: talking about proteins (Danio contains 12%) and their role in fighting against food "cravings". The "protein" trend is now well and truly visible. Overview of protein sources which will bring about tomorrow's innovations.

## ► Soluble wheat protein

Tereos Syral has developed Meripro®, a highly concentrated soluble wheat protein. Available as a free flowing powder, off-white coloured, it is an ingredient as such, formulated without any E numbers.

Meripro® allows creating many high-protein bakery products - cookies, cakes, breads ... as well as cereal-based products (breakfast cereals, extruded products, cereal bars). These proteins can rebalance the nutritional content of many food products such as children's cereals, which are often too high in

sugars. According to Frédérique Respondek, chief scientist and regulatory affairs at Tereos Syral, given that the "hydrolyzed proteins, like Meripro®, are more quickly digested by the body and are more efficient in stimulating the muscle protein synthesis", they have beneficial effects on the growth or maintenance of muscle mass. These effects are officially recognized by the European authorities through sound scientific evidence obtained in athletes and the elderly. Let's take, for instance, bread; due to its high palatability and supple texture, key attributes facilitating its use among the elderly - a population segment which suffers from malnutrition, bread "appears to be an excellent food matrix providing them with a daily protein intake". A 50g high-protein brioche serving formulated with Amygluten® vital wheat gluten, Meripro® soluble wheat protein and concentrated whey proteins brings 9g proteins and 23% energy. The combination of wheat proteins and those of dairy origin ensures the complementarity of amino acid composition and solves the technological problems related to the protein enrichment of bakery products, such as dough machinability, loaf volume, and airy crumb structure. With a neutral taste and highly soluble, Meripro® can also be used in high-protein

beverages such as dehydrated vegetable soups, sports drinks or plant-origin "milk". Another argument in favour of Meripro® wheat protein: it is a cost-friendly alternative to milk protein and skimmed-milk powder. Tereos Syral patented a manufacturing process for wheat protein drinks, thus overcoming the problems of stability and shelf life. The nutritionally-balanced recipe is based on wheat proteins associated with a source of carbohydrates and polyunsaturated fats and has good organoleptic properties.

## ► French Origin Guaranteed proteins

With its 450,000 tons of wheat grown in the Champagne-Ardenne Picardy region, namely by the farmers at VIVESCIA - its largest shareholder, and processed into starch, proteins, wheat germs, glucose syrup, glucose-fructose syrup, bran ..., Chamtor has been awarded the French Origin Guaranteed label by the Pro France association following an investigation carried out by Bureau Veritas Certification, the world's leading certification body. One site in France, good management of the raw material supply, traceability of the controlled sector, national and even regional acknowledgment for purchases, know-how, etc., these are all Chamtor's guarantees offered to customers who, in their turn, have the possibility to claim the French Origin for their own products. Among the main ingredients there are the glucose (GLUCOR) and glucose-fructose syrups (FRUCTOR) whose sweetness and texture adapt to user needs, the Natilor food starch which provides texture and binding, functional and nutritional proteins, the Vitalor vital gluten and the GBS P 51 soluble gluten whose stability, texture, palatability properties offer real alternatives to animal proteins.

## ► New grades of pea protein at Cosucra

The Belgian group is launching its latest pea protein grade, Pisan® B9, a product designed specifically for bakery applications - bread, cakes, cookies, bars, etc. This patented ingredient, which has a specific process, is characterized by its low water absorption - which reduces the cooking time and thus improves the product's texture. The classic pea proteins

(such as Cosucra's C9 and F9 grades) readily absorb the excess water, thus increasing cooking time. With a neutral taste, this new grade provides good development possibilities in increasing bread and cakes' volume and reduces the stiffness of high-protein bars. The technological improvement brought by Pisan® B9 does not diminish any of the pea protein nutritional characteristics: a balanced nutritional profile - mainly regarding the amino acid profile - cholesterol-free, isoflavone-free, non-GMO and clean label (gluten and lactose-free, pea is not recognized as an allergen). Please note that Cosucra has also developed Pisan® F9+, a low viscosity pea protein with a very high protein content (88% dry matter), whose fluidity and taste were improved as compared to grade F9.

## ► Ingredia Nutritional expands its Prodiet range

Prodiet Advance launched by Ingredia Nutritional is a specialty protein which can formulate a high milk protein pudding (12%) that is yet tasty, therefore broadening the range of high protein products. This ingredient gives a creamy and smooth texture combined with a pleasant dairy flavour - contrary to standard milk protein isolates and caseinates. Positioned mainly in weight management, this high protein pudding is also suitable for clinical nutrition and food for the elderly. Please note that the company offers many grades of milk proteins: Prodiel Fluid (Innovation Award at HiE 2012) is a milk protein isolate for formulating high protein drinks (35g protein/250ml or a 14% protein content) with an excellent nutritional profile, clean label, which remains fluid (88% viscosity decrease as compared to a standard isolate; Prodiel Bar 30 is specially

## ► LUPINE: TIMELESS PROTEIN

Lupine has the advantage of being a protein of yesterday, today and tomorrow. Even if it was added to the list of major allergens (not a surprise as a protein), lupine is a sure value. With soybeans, it is one of the richest plant proteins with a content between 35 and 40% in seeds. Terrena, an agricultural cooperative whose Lup'Ingredients is an activity that controls the lupine sector, from seeds to ingredients, clearly displays its ambition of doubling the area under cultivation of lupine by 2015 to meet demand.

## MORE PROTEINS...

- Optipep and Isolac: Carbery whey protein for weight management and blood sugar control.
- Peptides Pepform of Glanbia Nutritionals - a technology which improves the solubility and the bioavailability of amino acids - for sports performance drinks.
- Hydrovon® 195 (Glanbia Nutritionals), a partially hydrolyzed pure whey protein isolate, a source of branch chain amino acids.

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CLAIM TYPE		
	Health claim wording	Conditions of use**
ARTICLE 13.1	Protein contributes to a growth in muscle mass	A claim that a food is a source of protein, and any claim likely to have the same meaning or the consumer, may only be made where at least 12 % of the energy value of the food is provided by protein
	Protein contributes to the maintenance of muscle mass	
	Protein contributes to the maintenance of normal bones	
ARTICLE 14.1 (B) *	Protein is needed for normal growth and development of bone in children	

\*Article 14(1)(b) : health claims related to child development. - \*\*Conditions as defined in the annex of Regulation (EC) No 1924/2006

adapted to the formulation of high protein bars, has an excellent nutritional profile and a pleasant mouthfeel, has no aftertaste and no dry mouth sensation.

#### ADM: Soy protein crisps ...

Archer Daniels Midland Company launches Textura™, a new customizable range of soy protein crisps. A high-quality and cost-friendly source of proteins, fibres and whole grains, these crisps improve the nutritional quality, texture and taste of many products - nutritional bars, cereals or snacks - with a very high protein content (up to 85 %). ADM thus expands its plant protein offer (Nutrisoy® range with soy or wheat-based products).

#### ... and concentrated proteins

ADM's new Foods & Wellness unit has developed new grades of functional soy protein concentrates marketed under the Arcon® brand. Arcon T Crumbles, for instance, has been specially designed to improve the texture of vegetarian products. Finally, due to the success of Clarisoy 100 and 150, the group is expanding its Clarisoy™ range by launching "the world's first vegetable protein" according to ADM, which combines quality and transparency in low pH beverages, such as sports drinks and recovery drinks.

#### GREEK YOGHURT HAS CONQUERED THE USA



It is an immigrant of Turkish origin, Hamdi Ulukaya, who launched in 2007 the Greek yogurt in the United States under the Chobani brand. A huge success: the high-protein yoghurts today weigh 40 % of the U.S. yoghurt market (\$7.3 billion in 2012).

#### A new hydrolyzate for sports nutrition applications

Armor Proteins (Bongrain Group) launched a new whey protein hydrolyzate, the Vitalarmor® H 80 LB. Characterized by a balanced amino acid profile, this hydrolyzate is heat stable under acidic conditions, while exhibiting good solubility. With low viscosity in solution, including at high concentrations, this ingredient is suitable for many applications - reconstituted drinks, ready-to-drink beverages, bars, etc. In the field of sports nutrition, Vitalarmor® H 80 LB is positioned in the recovery and rebuilding muscle after resistance exercise (also see interview). In clinical nutrition, the ingredient is a protein source for patients who have absorption difficulties.

#### A new concept: protein water

Aria Foods Ingredients introduces a new beverage concept, the Protein Water. Protein Water is a prototype to explain to soft drinks companies the real potential of incorporating high-quality isolated whey proteins in beverages. Each 500ml bottle of Protein Water contains 25% of the daily protein intake, thereby allowing a nutritional indication labelling. Water can be fortified with vitamins and minerals to develop a complete nutritional drink that fits the lifestyle of consumers looking for healthier drinks. Main positioning: women, weight management.

#### Hypoallergenic protein

In the field of plant proteins, Nexira now offers the Prothy™ R80, a hypo-allergenic source of high tolerance, high nutritional value hydrolyzed rice protein, particularly suitable for the infant and the elderly nutrition. ■



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