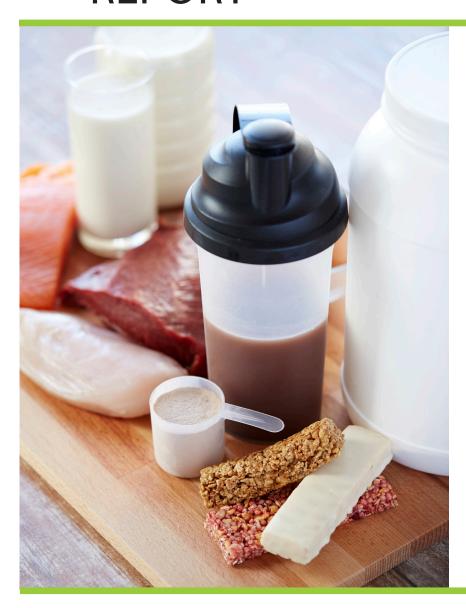
20 CATEGORY INSIGHT16 REPORT



PROTEIN IN TRANSITION

Protein ingredients and high-protein products are going through a transition these days.

From soy and whey protein facing criticism for being processed to innovative proteins like pea and insect gaining ground, things are moving quickly. Let's take a look at the ingredients, new products and claims in the world of protein.

SOY AND WHEY UNDER THE MICROSCOPE

In the past, soy and whey were the leading sources of protein used in market products. Lately, however each has come under scrutiny for the presence of GMOs, level of processing and incompatibility with "free-from" and vegan diets. Soy and whey, while still in high demand, seem to be losing ground.

In response, Muscle Milk RTD was recently reformulated to eliminate soy, reduce sugar and reduce fat by 40%. U.S. snack bars are the leading sub-category for high protein claims. Within that sub-category, non-GMO, Organic and Vegan claims are increasing. For example, non-GMO claims had three percent of the market April 2012-March 2013 but a full 54% April 2015-March 2016.

Globally, when we look at all food and beverage products carrying the high protein claim, we see the Vegan and "No Animal Products" claims moved from 12% to 30% of launches from 2011 to 2015. Non-GMO rose from 15% to 26%. As a side note, the claim of "Weight & Muscle Gain" shot up from 3% of launches to 36% during this same time frame.

%OFNATURAL CLAIMS IN PROTEIN SNACK BARS, US

Claim	Apr 2012 - Mar 2013	Apr 2013 - Mar 2014	Apr 2014 - Mar 2015	Apr 2015 - Mar 2016
	%	%	%	%
Non-GMO	3	30	42	54
Organic	8	20	22	26
Vegan	9	19	15	24

% OF USE OF SPECIFIC PROTEINS AND PROTEIN RICH INGREDIENTS IN PROTEIN SNACK BARS, US

Ingredient	Apr 2013 - Mar 2014	Apr 2014 - Mar 2015	Apr 2015 - Mar 2016
	%	%	%
Soybean Proteins	59	59	46
Whey Protein	43	47	38
Nuts	67	73	75
Seeds	24	41	40
Rice Protein	6	9	15
Pea Protein	5	8	14
Chia Seed	7	7	21
Quinoa	5	6	11

PEA PROTEIN

Pea protein is a soy and whey alternative that is taking off. The number of global food launches containing pea protein soared by over 80% between 2013 and 2015, as part of a wider trend towards foods perceived to be more natural. "No Animal Ingredients" was the number three claim for these items, appearing on 33% of products. Pea protein works well in bread products, and we see MuscleFood's new high (pea) protein pizzas hitting the UK market with more than 60 grams of protein. Mintel reports that one in five US pizza eaters consider high protein content when purchasing a pizza, so this could be of interest for US food manufacturers.

MINIMAL PROCESSING & "REAL" INGREDIENTS

Consumers overwhelmingly prefer their protein to come from real food ingredients naturally high in protein such as nuts, seeds, ancient grains and legumes. (Not surprisingly, these ingredients are increasingly prevalent in snack bar launches.)

Hershey's is banking on these "real ingredient" consumers to carry its new Krave Protein Bar made from dried meats and a combination of other ingredients, like mangoes, cranberries and quinoa. Hitting store shelves August 2016, the bar came about when Hershey's

noticed U.S. sales of meat snacks increased an average of almost 10.5 percent annually since 2010 and made the move to add Krave to its portfolio. Krave is a leader in premium jerky, "the fastest-growing sub-segment of the estimated \$2.5 billion U.S. meat snacks category." Its jerky comes in flavors such as Pineapple Orange, Basil Citrus, Black Cherry Barbecue, and Lemon Garlic.

Hershey is also developing another healthy brand called SoFit, which features sunflower seeds and almonds coated in protein, fruit-flavored protein smoothies in squeezable pouches, and snack bars.

COCA-COLA RIDING THE PLANT-BASED WAVE IN CHINA

Coca-Cola recently purchased China Green, a plant-based protein beverage company. In China, 45% of juice drinkers say juices containing plant proteins or vegetables are healthier than pure juice, while 23% consider plant protein drinks as healthier than juice. Bloomberg reports plant-based protein drinks have grown about 18% a year in China since 2008, in part because many Chinese are lactose intolerant and see the protein drinks as an alternative.

PRODUCT LAUNCHES

Vega Snack Cranberry Almond Bar

is a plant-based vegan product containing omega-3, and is free from GMO ingredients and gluten. US



Purasana Vanilla Taste Vegan Protein

Shake is based on easily digestible pea protein with a high amino acid profile, supplemented by green tea extract, konjac and a green blend of spirulina, chlorella, wheatgrass and barley grass. This protein is non-GMO and gluten, lactose and soy free. The plant based product is high in protein and low in fat. UK



GoMacro Macrobar Everlasting Joy Coconut, Almond Butter and Chocolate

Chips Bar is a high-protein USDA Organic certified and vegan product. It's free from gluten, soy and GMOs. US



#Fropro The Fit Scoop Chocolate Flavored

Ice Cream is an all-natural, low glycemic index product that's 99% sugar free, low in fat and high in protein. It contains 81 calories per serving, is free from gluten and also available in Peanut Butter flavor. Australia



The Protein Ball Co. Protein-Kugeln auf Dattelbasis mit Goji Beeren und Kokosnuss (Goji

+ **Coconut Protein Vegan Balls**) are all-natural, vegan, high protein balls stacked with organic rice protein, pea protein and hemp protein. This product is free from gluten, dairy, soy, wheat, added sugar and GMOs. Germany



PROTEIN

Alpro Go On Hapatettu Soijatuote,
Maustamaton, Lisätty Kalsiumia ja Vitamiineja
(Plain Plant-Based Alternative to Quark and
Strained Yogurt) is vegan, high in plant protein and naturally
low in saturated fat. It has been enriched with calcium and
vitamins, it is free from milk products, lactose and gluten. Finland



B Beanee Pasteurized Soy Milk is pasteurized, vegan, organic soy milk with tofu sheets and veggie bubbles. It is high in protein and contains no added preservatives. Thailand



Futurelife Smart White Bread is claimed to be South Africa's first and only non-GMO, low GI bread that is naturally high in energy, protein and Omega-3, a source of dietary fibre, 13 vitamins and four minerals, and contains 19 amino acids. The halal and kosher certified product is naturally free from cholesterol and is suitable for vegans. South Africa



INSECT PROTEIN

Insects have been receiving attention as an alternative high protein source that that are also high in fat and essential amino acids. Crickets and other insects are more environmentally friendly than other forms of protein, because they can be raised on less land and emit fewer greenhouse gases than traditional livestock. Many countries in Africa, the Americas, Asia, and Europe are already ahead of the game, with an estimated two billion people consuming insects as part of their regular diets, according to Food Navigator. But a "significant minority" of US (27%) and UK (26%) consumers are ready to jump on the insect train and eat products made with ingredients like cricket flour. In China, 52% are interested.



OREO MUD PIE CRICKET MILKSHAKE

A visit to Wayback Burger in Dallas last summer brought your Trend Team face-to-face with an Oreo Mud Pie cricket milkshake. Wayback Burgers originally launched it as an April Fool's Day joke, but it was so popular, the chain brought it back for the summer.

The Oreo Mud Pie shake is made with Peruvian-chocolate flavored cricket powder, whole milk, ice cream, Oreo pieces and coffee and chocolate flavor. It delivers 24 grams of protein. Despite the numbers saying not many people are interested in food items involving insects, our server told us they were quite popular and that she sold a lot of them. Perhaps the involvement of Oreos and ice cream out-weigh any anti-insect feelings!

SNAP INTO A SLIM JIM...MILKSHAKE!

Wayback also featured a Slim Jim Milkshake with 20 grams of protein. The jerky-flavored shake was flavored with barbecue, maple syrup and hickory spice, and garnished with a pair of Slim Jims that delivered the heft of the protein count.

PRODUCT LAUNCHES

Gathr Crobar Peanut & Cricket Flour Snack Bar contains
19% ethical protein and is free from gluten, soy and dairy. It is described as a
dried fruit, nut and seed bar with cricket flour. The label states, "Crickets are
the tasty, nutritious and sustainable protein source of the future and they take
less resources to farm, produce less harmful by-products and are higher in
protein and micro-nutrients than beef." UK

Uka Protéine Chocolate & Cayenne Seeds and Cricket Flour Bar is non-GMO, high in fiber, contains 10g of cricket and vegetable protein, and is free from gluten, dairy and peanuts. Canada

Chapul The Original Aztec Cricket Bar is a dark chocolate, coffee, and cayenne flavored bar that contains protein from cricket flour.

The cricket flour is described as a complete protein that promotes health of the individual and health of the planet. The all natural product is free from soy, gluten, and dairy and the manufacturer donates 10% of profits to water sustainability projects worldwide. The manufacturer is said to advocate insect consumption in the name of environmental sustainability. US

Jimini's Le Criquet Poivre & Tomates Séchées (Pepper & Dried Tomatoes Flavored Crickets) can be eaten whole or without the head and the wings. The crickets were raised in Europe, prepared in France, and are described as crispy and crunchy. France









WHAT'S NEXT FOR PROTEIN?

Jodie Minotto from Mintel summed the protein ingredient tug of war up nicely in an April 2016 report. She said that at some point consumers of packaged foods are making a compromise with regards to how fresh and natural the food they are buying is. For this reason, she suggests non-GMO soy and "cleaner" whey, such as organic whey sourced from grassfed cows to appeal to protein enthusiasts inclined towards clean label products.

Also, alternatives like pea protein are important for the needs of the consumers driving the increase in vegan claims and those interested in plant-based protein boosts in food and beverages for other health reasons, as well. Insect protein, while not making huge in-roads in the US, are on the radar now and are an ingredient to watch as sustainability is sure to remain a hot topic in the future.

FUTURE OPPORTUNITIES

FONA CAN HELP!

Let FONA's market insight and research experts translate these trends into product category ideas for your brand. They can help you with concept and flavor pipeline development, ideation, consumer studies and white space analysis to pinpoint opportunities in the market. Our flavor and product development experts are also at your service to help meet the labeling and flavor profile needs for your products to capitalize on this consumer trend. We understand how to mesh the complexities of flavor with your brand development, technical requirements and regulatory needs to deliver a complete taste solution. From concept to manufacturing, we're here every step of the way.

From concept to manufacturing, we're here every step of the way. Contact our Sales Service Department at 630.578.8600 to request a flavor sample or visit www.fona.com.

SOURCES

Mintel GNPD

Food Navigator

Mintel Food and Drink

NorthJersey.com

BevNet.com

Magazine.foxnews.com