

Vertis™ CanolaPRO®

A protein of the future, today

Vertis™ CanolaPRO®,
a high-quality and
versatile protein.

dsm-firmenich 

Meet the cream of the crop!

What if we could take one of the world's most common crops, canola, and unlock the protein within to create a whole new generation of healthy and sustainable products?

As the plant-based revolution continues, one of the greatest challenges faced by food & beverage manufacturers is how to revolutionize your offerings – and appeal to a generation of thoughtful and informed consumers.

At dsm-firmenich we see this as a huge opportunity to help you achieve your sustainability and nutritional goals.

A protein like no other

Vertis™ CanolaPRO® is a high-quality and versatile protein unlike anything out there. Sourced from the canola (or rapeseed) plant, we use a patented technology to extract this protein from the cake (or meal) that remains after the oil is pressed from the canola seed.

The result is a complete (PDCAAS = 1) 90% native plant protein isolate that is certified non-GMO; gluten-free and solvent free; and delivers exceptional nutritional quality and a balanced sensory profile with low environmental impact. * <20ppm*

Plentiful, sustainable and viable

Canola is plentiful (the world's third leading source of vegetable oil); and our process is highly sustainable. In fact, it has the lowest overall environmental impact of any common, large-scale protein (isolates) on the market.

But just as importantly, Vertis™ CanolaPRO® is a viable ingredient – now being used to create a new generation of nutritious, delicious, sustainable products. It can be used in dairy-, meat & fish alternatives, baking products and in performance nutrition products like bars and beverages.



46%

54%

54%

65%

Meeting the need

It all starts with the consumer, so that's where we start.

It's clear that plant-based products are now an increasingly important part of people's lives. There are now more flexitarians than vegetarians and vegans combined¹ – and they are increasingly choosy about what they eat in terms of the impact on their tastebuds, their health, and the planet.

Based on our own proprietary research² (and confirmed with our interactions with customers and manufacturers) we see three trends:

Consumers want healthy protein

46% of global consumers who have **changed** their diet in the last two years have **increased** their plant protein intake.

54% of global consumers **are seeking more added protein** in their products.

That's also better for the planet

54% will **seek products** that have a low **carbon footprint**.

But with no compromise on taste (or texture)

65% are looking for **better taste** in their products.

And we have Vertis™ CanolaPRO® to help you develop a new generation of nutritious, delicious, sustainable and affordable products.

¹ * FMCG Gurus – average results for 10 countries
² Source: DSM Future Food Trends survey 2020, n=5,000, 10 countries (Brazil, Mexico, US, China, Indonesia, Germany, Poland, Spain, UK & Turkey)

Choose your category!

Above all, Vertis™ CanolaPRO® is a versatile protein. You can use it across various categories in a wide range of different applications. And with lowest environmental impact compared to common large-scale proteins, it is also a sustainable solution.

Dairy alternatives

Plant-based dairy is forecasted to grow at 7.8% CAGR 2022–27 in Europe³. There is a clear opportunity for brands to differentiate their products in this category.

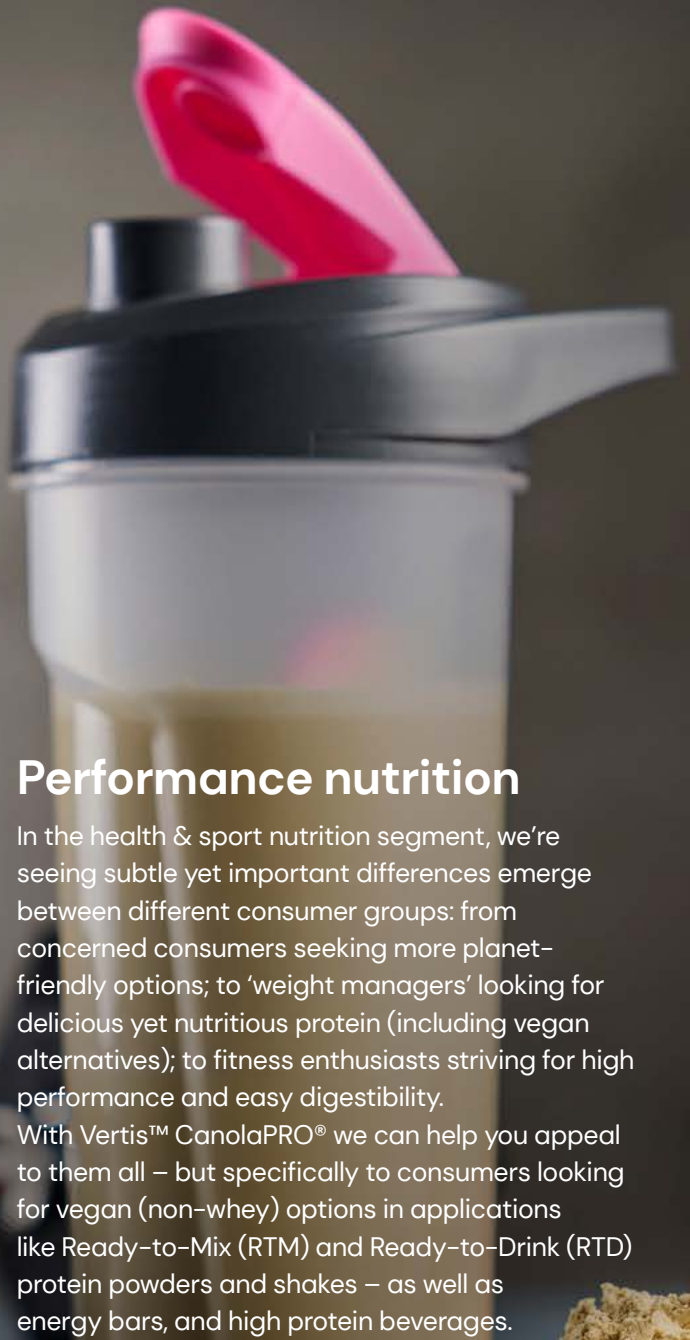
Vertis™ CanolaPRO® helps you achieve this in everything from milk and yogurt alternatives, to plant-based ice cream, cream cheese and cheese alternatives.

Thanks to its high solubility – even at low pH – , good emulsifying properties and gelling behavior, Vertis™ CanolaPRO® can be easily blended into these applications. As a single source of protein or in combination with other plant-proteins. Delivering a smooth, creamy mouthfeel and neutral taste. With the additional benefit of providing a high protein content.

Meat & Fish alternatives

We didn't just create Vertis™ CanolaPRO® to give your products a trusted protein hit, with high nutritional value. It also delivers a unique texture, both in wet and dry extrusion, when texturized with other proteins. This in turn results in a base with a clean and neutral taste.

This is key because more than half (52%)⁴ of consumers who are dissatisfied with plant-based products have attributed this to taste.



Performance nutrition

In the health & sport nutrition segment, we're seeing subtle yet important differences emerge between different consumer groups: from concerned consumers seeking more planet-friendly options; to 'weight managers' looking for delicious yet nutritious protein (including vegan alternatives); to fitness enthusiasts striving for high performance and easy digestibility.

With Vertis™ CanolaPRO® we can help you appeal to them all – but specifically to consumers looking for vegan (non-whey) options in applications like Ready-to-Mix (RTM) and Ready-to-Drink (RTD) protein powders and shakes – as well as energy bars, and high protein beverages.





Cereal applications

It's crunch time for healthier snacking – with our delicious, nutritious and versatile protein crispies, puffs and loops. Using Vertis™ CanolaPRO® you can create a high protein, nutritional crispies and puffs without compromising on taste and texture. Ideal for use in protein and nutrition bars or in breakfast cereals. As a stand-alone product or integrated.

³ Source: Passport Euromonitor

⁴ FMCG Gurus Meat & Plant-based Global Report 2022

Categories & Concepts

Segment	Products & concepts	Benefits
 <p>Dairy alternatives</p>	Plant-based <ul style="list-style-type: none"> • Drinks • Spreads • Ice-cream 	<ul style="list-style-type: none"> • High solubility • High foaming capacity • Emulsifying capability
 <p>Meat & Fish alternatives</p>	Dry and wet extrudates, as part of burgers, nuggets, flaky fish alternatives, etc	Improved <ul style="list-style-type: none"> • Resilience and chewiness of extrudates fortified with CanolaPRO® • Water incorporation in HME • Efficiency of production process
 <p>Performance nutrition</p>	<ul style="list-style-type: none"> • High protein beverage • Nutritional bar • High protein bar • Ready-to-mix 	High solubility <ul style="list-style-type: none"> • No increased viscosity upon solubilizing • Improved mouthfeel (not powdery)
 <p>Cereal applications</p>	Crispies, loops and puffs for: <ul style="list-style-type: none"> • Protein bars • Cereal bars • Breakfast cereals • Granola mix 	<ul style="list-style-type: none"> • Easy to integrate • Enhancing nutritional profile • No compromise on texture and taste. • Protein boost

“During extreme sporting events like the Tour de France, my body is under a lot of pressure. The vegan Vertis™ CanolaPRO® Protein Bar successfully aids my recovery, making sure I receive the optimal nutrients needed – and I’m better prepared for the days ahead.”

Alex Edmondson, rider Team dsm-firmenich





Feel the benefits of Vertis™ CanolaPRO®

At dsm-firmenich, we believe that you and your customers shouldn't have to choose between what our bodies need, what our tastebuds want, and what our planet can bear. We're on a mission to make these dietary dilemmas a thing of the past and help transform our global food system in the process.

Vertis™ CanolaPRO® is now the only commercially available certified upcycled protein with a PDCAAS of 1. This certification is awarded to companies that use ingredients that would otherwise have not gone to human consumption.



Three reasons to choose Vertis™ CanolaPRO®:

Nutritional benefits:

- Complete protein (PDCAAS = 1)
- Excellent nutritional quality
- Isolate ≥90% protein

Functional benefits:

- Good sensory properties
- High solubility, also at low pH
- High foaming and emulsifying capacity
- Good gelling behavior and high gel elasticity

Societal & health benefits:

- Certified non-GMO
- European-sourced seeds
- Free from major allergens
- Gluten-free (<20 ppm)
- Soy-free
- Kosher/Halal

A planet-friendly protein

What used to be a side stream that remained after the canola plant was processed into vegetable oil, is now an extremely valuable cake containing 30–40% high-quality, edible protein. It's all part of our wider commitment to bring progress to life with products that are better for people and planet.

How Vertis™ CanolaPRO® fits five sustainability drivers



Sustainable sourcing:

We convert a crop side stream from the region to a high-quality protein, at one location – from seed to final protein.



Climate:

The production plant is engineered to achieve Greenhouse Gas (GHG) neutrality by generating biogas, reusing water, and purchasing renewable electricity.



Water:

We use best manufacturing practices, including water recycling, in our processes to help minimize the water footprint of our product.



Waste:

A low-value sidestream is transformed into an edible and nutritious protein; meanwhile we co-produce biogas from the wastewater treatment.



Nutrition & health:

This >90% protein contains all the essential amino acids (PDCAAS = 1). It's non-GMO, gluten-free, non-dairy and low sodium; and all via solvent-free extraction.

An environmental assessment of proteins

	Low Carbon Footprint <6 kg CO ₂ eq/kg protein	Medium Carbon Footprint 7–15 kg CO ₂ eq/kg protein	High Carbon Footprint >15 kg CO ₂ eq/kg protein
Low Water Use <0.1 m ³ /kg protein	Vertis™ CanolaPRO® isolate (96% protein db*)		
Medium Water Use <0.5 m ³ /kg protein	Pea protein isolate (84% protein db)	Soy protein isolate (92% protein db)	Whey protein concentrate (80% protein db)
High Water use >0.5 m ³ /kg protein			Egg white protein (80.5% protein db)

We bring progress to life

We're proud to be part of dsm-firmenich:
a Swiss-Dutch global group, formed from two
global leaders in science & innovation.

Our nearly 30,000 loyal, passionate, talented and diverse employees across the globe strive every day to be a force for good and bring progress to life for people and the planet.

And with over a century of scientific leadership under our belts, we intend to keep pushing the boundaries of what's possible - and improve billions of lives. We'd love you to join us on that journey.

Learn more about Vertis™ CanolaPRO® at [dsm-firmenich.com](https://www.dsm-firmenich.com) or scan the QR-code:



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