Plant-based Protein Food Market in Norway



July 26, 2021



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Executive summary

There is an opportunity for Manitoba producers and investors in new processing facilities to profit from the current plant-based protein food market situation in Norway. They can do this by exporting either soy, peas or oats and their protein extracts to the Norwegian market.

Norway is the fourth-largest economy in terms of gross domestic product (GDP) per capita and has the world's largest sovereign wealth fund, with a value of US\$1 trillion. Given its credibility in backing up its progressive environmental goals with requisite financing and risk capital, as well as its reputation as an early adopter, the Norwegian market can be particularly inviting for new and innovative technologies and products. Canadian companies that choose Norway often report that it is like-minded to Canada, easy to do business with, less sensitive to high prices because of its purchasing power and holds niche opportunities.

For Norwegians, the use of plant-based proteins supports their sustainability goals. In a short period of time, there has been rapid market growth for Norwegian branded plant-based protein foods, which include imported and local products. The Norwegian government's long-term goal policies are also contributing to the reduction of red meat consumption, and consumers are replacing it with plant-based protein foods. The global pea protein market alone is forecast to grow at an annual rate of eight per cent during 2021-2026. While Norwegian manufacturers use already available machinery for the production processes, and mainly imported ingredients such as soya or pea extracts, Manitoba has a much more developed market from both a producer, technology, and product diversity point of view.

In 2020, sales of free- from meat and other frozen meat substitutes in Norway registered 31 per cent growth¹. Chilled meat substitutes was another fast-growing product category in Norway, rising by 26 per cent in retail sales value, reaching C\$7.2 million in 2020². Norway has a variety of vegetarian products with meat substitutes under Norwegian brand names. These include sausages, burgers, cold cuts, cheese and meatless ready-to-eat dishes, totaling 36 plant-based food products. Orkla, an Oslo-headquartered company, has solidified its ambitions in plant-based foods by setting up an alternative-protein business, while it has also signalled its readiness to make acquisitions in the category.

Norwegian pulses imports with 14.5 per cent of compound annual growth rate (CAGR) for the 2016-2020 period show a promising opportunity for pulse exporters such as Canada. In 2020, Canada exported C\$850,983 of pulses to Norway, representing an increase in CAGR of 24 per cent from exports valued at C\$360,810 in 2016. High production costs of peas and beans in Norway make them far more expensive than comparable imported products. Agricultural production costs are higher in Norway due to climatic conditions and higher labor costs³.

Plant protein extracts, used in the manufacturing of plant-based food products and meat analogs, report a significant CAGR of 29.3 per cent in the period 2016-2020. Norwegian manufacturers import processed ingredients from abroad because they have not yet invested in equipment adapted to produce ingredients for plant-based meat alternatives⁴.

¹ EuroMonitor (Free From in Norway, February 2021)

² EuroMonitor (Free From in Norway, February 2021)

³ Norsk Institutt for Bioøkonomi - The plant protein trend in Norway

⁴ Norsk Institutt for Bioøkonomi - The plant protein trend in Norway

Key demographics and economic indicators

Country name: Kingdom of Norway Chief of State: King Harald V Head of Government: Prime Minister Erna Solberg (since 2013) Government Type: Unitary constitutional monarchy Capital: Oslo Legislature: Unicameral Assembly (Stortinget) Judiciary: Supreme Court (consists of 20 permanent judges)

Location: The Kingdom of Norway is a Nordic country in Northern Europe whose mainland territory comprises the western and northernmost portion of the Scandinavian Peninsula. It has a total area of 385,207 square kilometres and shares a long eastern border with Sweden (1,619 km). The country is bordered by Finland and Russia to the northeast and the Skagerrak strait to the south, with Denmark on the other side. Norway enjoys an extensive coastline, facing the North Atlantic Ocean and the Barents Sea. The country's official languages are Norwegian and Sami, with Kven, Romani and Scandoromani as minority official languages. ⁵

Economic indicators: In 2019, the Kingdom of Norway was the 30th economy in the world in terms of GDP (US\$403.3 billion (2019),⁶ the 32nd in total exports, the 39th in total imports, the fourth economy in terms of GDP per capita and the 43rd most complex economy according to the Economic Complexity Index (ECI). It has the world's-largest sovereign wealth fund, with a value of US\$1 trillion.

Population: 5.4 million people (Jan. 1, 2020). GDP growth: 2.5 per cent (decrease) (2020) and 1.2 per cent increase (2019) GDP per capita: \$67,987 (PPP, 2020) GDP per capita rank: fourth (nominal, 2020) Inflation: 1.3 per cent (2020 est.)

Consumption and the market

Consumer Trends

Good taste and a reasonable price are the main ingredients of a successful plant-based protein food such as a processed meat alternative product. Consumer food choice is also influenced by family preferences, knowledge of preparation, health and environmental awareness. For Norwegians, the use of plant-based proteins is part of the solution for sustainable food production.

Results of a recent survey⁷ that explored the drivers towards reducing meat consumption suggested that most consumers (71 per cent of survey respondents) wished to reduce their meat intake mainly because of health reasons, while 36 per cent and 26 per cent are driven mainly by environmental reasons and animal welfare considerations, respectively. Many young people say that the reason why they wish to limit their intake of meat is motivated by environmental, animal welfare and ethical considerations. Women are also far more concerned about animal welfare than men. Still, very few choose to change to a completely plant-based diet. The number of people with a vegetarian (three per cent) or vegan (one per cent) lifestyle is the same as it was ten years ago⁸.

⁵ Wikipedia.org

⁶ World Bank

⁷ Poll conducted by the Norwegian Institute of Food, Fisheries and Aquaculture Research

⁸ Nofima-The Norwegian Institute of Food, Fisheries and Aquaculture Research

The COVID-19 pandemic brought changes to consumer behaviour. Home seclusion and more home cooking boosted sales of free-from meat and free-from dairy in 2020. It also increased awareness of the need to adopt a healthier lifestyle and the importance of a healthy body and immune system. As a consequence, the interest in plant-based protein foods as meat substitutes continued to grow rapidly as more consumers looked to eat less meat, often based on health or environmental concerns. Free-from dairy also helped to drive overall growth in the category as consumers increasingly turned to a plant-based and free-from dairy milk as a substitute for traditional milk within their daily diet. In addition, the Norwegian government's long-term goal policies of reducing consumption of red meat have had an impact. Meat consumption has reached 51.6 kilos per capita per year in 2019, the lowest figure since 2006. ⁹.

Free-from (meat, gluten, lactose) records a current retail value growth of 12 per cent and retail volume growth of nine per cent to stand at sales of C\$150 million and 30,100 tonnes respectively in 2020. Free-from meat and other frozen meat substitutes registered the highest value growth in 2020, with current value sales rising by 31 per cent. Chilled meat substitutes is another of the fastest growing categories in 2020, rising by 26 per cent in retail current value terms to C\$7.2 million¹⁰.

The majority of meat substitutes for Norwegian consumers are based on soy protein. Therefore, the production of more peas and field beans will represent new and attractive food alternatives.¹¹ Nowadays, peas are grown to a limited extent in Norway and are mainly used for animal feed. At the same time, there is more demand for beans and lentils in Norwegian stores, with the specific steep demand for processed meat alternatives.

Norwegian manufacturers also import processed ingredients from abroad because they have not yet invested in equipment adapted to produce ingredients for plant-based meat alternatives. However, high production costs for Norwegian peas and beans make them far more expensive than comparable imported products. Norwegian oat is in a better situation. Firstly, this is because more oat is produced than beans and peas. Secondly, it is because Norwegian oat is protected by customs tariffs, making them more competitive compared to imports.¹²

Current market size and forecast 2020 to 2025

In Norway, there are ten groups that either make, distribute and/or sell several plant-based protein foods as meat alternatives, such as burgers, mince, sausages, nuggets, and veggie balls. The successful introduction of new plant-based protein foods will need to be based on an increased knowledge of manufacturing processes, distribution channels and potential partners, consumer needs and preferences and innovation as well as better information for consumers.

Orkla, an Oslo-headquartered company, has solidified its ambitions in plant-based foods by setting up an alternative-protein business, while the Norway-based firm also signalled its readiness to make acquisitions in the category. The company, home to vegetarian brands Naturli' and Annama, announced at the end of April 2021 it wants to be one of the foremost players in alternative proteins in Europe, building on a forecast it made in September to double revenues from plant-based foods within two years.Orkla's plant-based brands, which also include Felix Veggie, Beauvais Veggie and Lecora Green Line had a total turnover of \$124 million in 2020, an increase of 21 per cent over

⁹ Data revealed in report from the Norwegian Institute for Bioeconomics (NIBIO).

¹⁰ EuroMonitor

¹¹ https://www.am-nutrition.no/blog/the-future-with-peas-and-other-plant-proteins-in-norway/

¹² https://www.nibio.no/en/news/keep-up-with-vegetarian-trends

2019. By 2025, Orkla is aiming to have a turnover of \$430 million in plant-based foods¹³.Vestkorn is the leading European producer of ingredients from peas and beans. The company produces textured pea protein, textured faba protein, pea protein, faba protein, pea fibre, pea starch and flours from peas and beans in a plant in Tao, Norway. Most ingredients are available as organic.

As by far the largest dairy player in Norway, Tine SA maintained its lead in free-from products because of its overwhelming dominance in free-from lactose in 2020. However, free-from lactose products often compete with those in free-from dairy, which appeals to a wider audience that includes vegans and individuals attracted to a plant-based diet. As such, free- from dairy has edged closer to free-from lactose in terms of value share within overall free-from packaged food. This gap is set to further narrow over the forecast period, with free-from dairy set to eventually overtake free-from lactose based on retail value sales. Tine SA thus made a strategic move to enter free-from dairy and free-from meat over the review period, introducing the Gryr and Tine VGTR brands respectively.

Bonaventura Sales AS, as the third-ranked player in free-from foods overall and the leader in free-from baked goods and free-from gluten breakfast cereals, recorded the strongest retail value growth in 2020. The player is also active in free-from dairy milk, where very strong growth for its trendy Berit Nordstrand brand contributed to a rise in its overall value share of free-from in 2020.

Plant protein products in the Norwegian market

There is already a substantial number of plant-based products, both frozen and fresh, available in the Norwegian retail market. Some of these have Norwegian brand names and are produced especially for the Norwegian market, either in Norway or abroad. By the end of 2017, there were already 23 different fresh or frozen plant-based protein foods as meat substitute products (sausages, burgers etc.), plus different kinds of cold cuts, cheese and vegetarian ready-made dishes with meat substitutes, with a total of 36 plant-based protein food products under Norwegian brand names. The majority of the products made in Norway are made out of soya (eight products)¹⁴.

Imported meat and dairy substitute products have been available in Norwegian supermarkets for many years. It is challenging to determine the changes in this niche market as these products are categorized under different classifications gathering many different types, among which many are not plant protein products.

The below table gives an overview of products produced in or imported into Norway. Soy protein is the most commonly used protein source, but the variation ranges from peas, oats and lupine to wheat protein (gluten). Products generally aim at replacing traditional meat or dairy products with a modern twist on brand image, packaging design and exciting tastes.

¹³ https://www.just-food.com/news/orkla-solidifies-plant-based-ambitions-with-new-alt-protein-business/

¹⁴ Nofima.no : The plant protein trend in Norway - Market overview and future perspectives

Table 1. Examples of Norwegian branded meat replacements and plant-protein rich products

Coop vegetardag series	Norwegian produced meat replacements based on egg white and pea protein (veggie burger, bean pasta)
liv laga vegetarburger (Hoff)	Burgers made from potatoes and brown lentils, produced in Norway
Anamma (Orkla)	Soy protein and one chickpea product produced in Sweden, introduced by Orkla for the Norwegian retail and food service market
Vegme	Burger, meat balls, minced meat made from soy protein produced in Sweden
Oatly	Oat-based milk, drinks, yoghurt, and ice cream products made in Sweden
Havregryn (Axa)	Protein oatmeal from Norwegian oats with added pea protein

Norway's imports of pulses, soybeans, protein extracts and oats

Currently, Norway either imports plant-based foods or produces them. For the last case, raw materials or premade ingredients are needed and imported for the production of plant-based foods, such as meat replacement products. Below are the imports of the different sources that either are part of the food products or are the base to create the plant-based protein ingredients that form part of the plant-based protein food alternatives.

Pulses

Pulses are being introduced as part of meals and are also used as an ingredient (protein extracts) in the manufacturing of meat analogues. Norway is reporting imports in pulses and derived products that place Canada as the 13th supplier with only 0.65 per cent in market share. As per Table 2 below, the compound annual growth rate (CAGR) for the 2016-2020 period shows a promising 14.5 per cent overall and 24 per cent for Canada. Although negligible, Manitoba reports sales to Norway during this period. This might be seen as a challenge, but it is also an opportunity to increase the share in a vibrant market.

	Time Period									
Country	Total		2016	2017	2018	2019	2020	CAGR		
	2016-2020	%	2010	2011	2010	2013	2020	CAGN		
World	509,692,097	100.00%	68,754,215	84,012,658	145,842,524	92,758,962	118,323,738	14.54%		
France	107,636,336	21.12%	26,769,499	28,730,069	23,799,332	15,905,578	12,431,858	-17.45%		
Denmark	79,571,182	15.61%	2,514,515	3,760,912	27,768,987	19,167,736	26,359,032	79.94%		
Estonia	51,314,940	10.07%	3,736,116	8,796,796	12,416,115	7,752,227	18,613,686	49.40%		
United Kingdom	48,414,076	9.50%	3,236,280	12,718,122	13,868,406	6,535,794	12,055,474	38.93%		
Lithuania	48,061,549	9.43%	7,656,016	6,747,904	10,434,363	13,192,123	10,031,143	6.99%		
Sweden	42,919,576	8.42%	10,471,290	11,459,039	10,846,041	6,213,577	3,929,629	-21.73%		
Latvia	25,438,613	4.99%	4,346,699	1,175,457	5,586,517	8,983,177	5,346,763	5.31%		
Russia	22,976,923	4.51%	3,128,877	4,801,510	10,289,222	1,009,952	3,747,362	4.61%		
Belgium	20,300,030	3.98%	10,204	133,052	9,354,078	2,175,120	8,627,576	439.24%		
Canada	3,325,892	0.65%	360,810	636,303	744,856	732,940	850,983	23.93%		

Table 2. Import of pulses and derived products into Norway (in Canadian dollars).

Source: Global trade Tracker.

Soybeans

Soybeans are another source of protein and the base for obtaining protein extracts used in plant-based protein products that are currently available in the Norwegian market. Norway imports soybeans mainly from the neighboring countries. Canada represents a negligible amount (0.05 per cent of market share) and it ranks 56th in the list of countries of Norway's soybean imports, with a CAGR of -44 per cent. The global CAGR is sitting at 7.28 per cent.

	Time Period									
Country	Tota		2016	2017	2018	2019	2020	CAGR		
	2016-2020	%								
World	614,486,709	100.00%	106,737,866	116,323,524	124,435,213	125,600,521	141,389,585	7.28%		
Sweden	115,016,003	18.72%	21,496,584	22,642,849	22,098,461	22,162,971	26,615,138	5.48%		
Netherlands	77,036,469	12.54%	14,575,640	14,486,619	12,386,140	16,093,890	19,494,180	7.54%		
Germany	62,065,798	10.10%	10,032,004	11,142,321	16,850,247	11,903,999	12,137,227	4.88%		
United Kingdom	46,437,872	7.56%	7,050,707	9,222,620	10,764,931	9,349,716	10,049,898	9.27%		
Italy	42,092,312	6.85%	7,435,293	7,881,495	7,889,531	8,360,101	10,525,892	9.08%		
Canada	287,764	0.05%	132,187	64,018	56,678	22,097	12,784	-44.23%		

Table 3. Norway imports of soybeans and derivative products

Source: Global Trade Tracker

Protein extracts and textured protein substances

Protein extracts are directly introduced in the manufacturing of plant-based foods, especially in meat analogs. The imports under this category have reported a significant CAGR of 29.3 per cent in the period 2016-2020 as shown in Table 4. Canada has reduced its sales to Norway and represents only half of a per cent of the total sales for the period 2016-2020. The construction of pea and canola protein extraction plants in Manitoba by multinational companies and the initiation of their operation is an excellent opportunity to fulfill Norway's demand for protein extracts which have shown steady growth every year.

Country	Time Period									
	Total		2016	2017	2018	2040	2020	CAGR		
	2016-2020	%	2010	2017	2010	2019	2020	CAGR		
World	20,288,266	100.00%	2,312,823	3,081,364	3,201,437	5,236,982	6,455,660	29.26%		
Denmark	4,499,636	22.18%	238,055	365,767	522,054	1,931,887	1,441,873	56.88%		
Serbia	2,827,470	13.94%	486,540	494,185	373,858	856,025	616,862	6.11%		
United Kingdom	2,354,096	11.60%	175,461	307,938	375,719	728,080	766,898	44.59%		
United States	2,233,688	11.01%	309,341	381,370	422,005	510,426	610,546	18.53%		
Sweden	1,853,718	9.14%	229,817	183,986	175,368	284,382	980,165	43.71%		
Canada	108,286	0.53%	35,118	32,221	32,140	7,559	1,248	-56.58%		

Table 4. Norway imports of protein extracts and textured protein substances (in Canadian dollars)

Source: Global trade Tracker

<u>Oats</u>

Imports of oats are also on the positive side with a 33 per cent CAGR, despite the fact Norway protects and applies tariffs to oats imports. Neighboring countries are the main suppliers. Canada did not export to Norway during the 2016-2020 period.

Table 5. Norway imports of oats.

	Time Period									
Country	Total		2016	2017 2018	2018	2019	2020	CAGR		
	2016-2020	%	2010	2017	2010	2019	2020	CAGR		
World	64,118,604	100.00%	4,163,253	2,288,881	17,554,809	27,039,105	13,072,556	33.12%		
Sweden	16,826,530	26.24%	3,026,776	1,953,221	3,586,316	3,723,846	4,536,371	10.65%		
Russia	12,801,830	19.97%	-	-	838,945	11,336,428	626,457	-13.59%		
Finland	6,545,797	10.21%	719,398	-	2,402,243	1,619,362	1,804,794	25.85%		
Estonia	6,236,529	9.73%	-	331,047	3,099,954	893,842	1,911,686	79.41%		
Latvia	6,118,533	9.54%	-	-	2,045,398	931,884	3,141,251	23.93%		

Source: Global Trade Tracker

Key groups in the supply chain and distribution

Norgesgruppen

NorgesGruppen is Norway's leading grocery wholesaling group, which includes several grocery chains, ASKO (Norway's largest grocery wholesaler) and Unil (responsible for import, development, purchasing and marketing related to NorgesGruppen's private labels). This wholesaling group also runs various retail outlets, such as Spar and Meny. With a 43.2 per cent market share in 2018, NorgesGruppen was the largest player in the Norwegian grocery retail market. The brand Meny has 187 stores, and operates what it calls full-service supermarkets, focusing on offering a large choice of fresh and/or high quality products, as opposed to discount supermarkets that offer low prices.

COOP

Norway's second-largest grocery group is a consumer-owned organization with almost 1.8 million co-owners. The Group also has private label production, including plant-protein based foods. It has a retail chain of approximately 1,000 stores in the country.

Rema 1000

Norway's third-largest grocery chain, is part of the grocery and convenience retail conglomerate Reitan Group. The Group has private label production, including plant-protein-based foods.

<u>Orkla</u>

Orkla is a leading supplier of branded consumer goods to the grocery, out-of home, specialised retail, pharmacy and bakery sectors in Scandinavia, with foods being their largest business area. Companies and brands in the Group also include leading Danish vegan producer <u>Naturli'</u> and Swedish meat analogue company <u>Anamma</u>. The Nordic countries, the Baltics and selected countries in Central Europe are their main markets.

Their brand business consists of the business areas Orkla Foods, Orkla Confectionery & Snacks, Orkla Care and Orkla Food Ingredients.

<u>Scandza</u>

Scandza owns several iconic Scandinavian consumer brands (over 20), primarily within the food segment, including vegan brand <u>Go'Vegan</u>. The company has ambitions of becoming the leading fast-moving consumer goods (FMCG) platform in the Nordics.

BAMA Group

Bama-Gruppen AS is Norway's largest private distributor of fruit and vegetables. It is engaged in wholesale trading of imported and Norwegian-produced fresh produce in fruits, vegetables and flowers to supply around 17,000 customers in Norway (mainly supermarkets). BAMA also partly owns Swedish plant-based protein producer VegMe.

Harlem Food

Part of Harlemgruppen, Harlem Food is a fully integrated trading company that focuses on buying and selling commodities in the international market. The group is one of Norway's largest independent importers of commodities to the Norwegian food industry and supermarkets.

<u>Sagro</u>

Sagro is an importer and supplier to the Norwegian food and beverage industry, with a product portfolio including beans, lentils, grains and peas.

<u>Hoff</u>

Hoff is an agricultural cooperative owned by 519 potato farmers in Norway. They are a food processor, and have also recently branched out into meat analogues through their Liv Laga brand.

Norske Felleskjøp (Felleskjøpet Agri)

Norske Felleskjop is the market regulator for grain in Norway, but also the retailer of grain and seeds (and other products). Most of the seed and grain is produced locally (the agriculture lobby would prefer all of it to be sourced locally),with the system relying on imports, primarily from Sweden and Finland, to balance seed supply in drier years. Felleskjøpet will at times also import goods directly.

EFTA implications

Canada's trade with Norway benefits from the free trade agreement between Canada and the European Free Trade Association (EFTA) countries of Iceland, Liechtenstein, Norway and Switzerland, a goods-only trade agreement that entered into force on July 1, 2009.

It gives Canadian companies the opportunity to have preferential tariffs in the EFTA countries, accessing infinite opportunities for growth.

The agreement provides for tariff concessions on processed agricultural products. Tariff concessions on selected basic agricultural products are covered by the bilateral agricultural agreements, which are part of the instruments establishing a free trade area between the Parties. As per the bilateral agreement between Canada and Norway, there are reductions of customs duties granted by Norway to Canada for¹⁵:

- Dried leguminous vegetables, shelled, whether or not they are skinned or split
- Soya beans
- Flours and meals of oil seeds or oleaginous fruits, other than those of mustard
- Flour, meal and powder of the dried leguminous vegetables

¹⁵ Agreement on Agriculture between Canada and the Kingdom of Norway

Key contact organizations

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Others:

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