EUROPEAN CONSUMER SURVEY ON PLANT-BASED FOODS

Describing the product landscape and uncovering priorities for product development and improvement

proveg international

IMPRINT

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ProVeg International

ProVeg is an international food awareness organisation working to transform the global food system by replacing conventional animal products with plant-based and cultured alternatives.

ProVeg works with international decision-making bodies, governments, food producers, investors, the media, and the general public to help the world transition to a society and economy that are less dependent on animal agriculture and more sustainable for humans, animals, and the planet.

ProVeg has permanent observer status with the United Nations Framework Convention on Climate Change (UNFCCC), is accredited for the United Nations Environment Assembly (UNEA), and has received the United Nations’ Momentum for Change Award.

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EXECUTIVE SUMMARY

ProVeg International recently conducted a survey of 6,221 consumers across nine European countries in order to identify priorities for product improvement and development, based on consumers' experience of purchasing and consuming plant-based products. This section provides a summary of the survey itself, as well as the main outcomes and key takeaways. It also provides six final recommendations for the food industry and retailers.

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Due to the growing demand for plant-based food, and the subsequent increase in plant-based alternatives across numerous categories, the survey was designed mainly to provide a better understanding of consumers' opinions about current plant-based products across a broad range of food categories and their availability in regional supermarkets, as well as to provide suggestions for future product development.

Of the respondents, more than three quarters (76%) were plant-based eaters (people who eat mainly or only plant-based food), while 24% were so-called reducers (people who are reducing or trying to reduce their consumption of meat and/or other animal-based products). In terms of gender, three out of four respondents were women (75%). As the sample has a high proportion of informed consumers (meaning that survey participants are quite familiar with the plant-based food sector), food producers and retailers can profit from the survey's findings in order to shape their product portfolio.

The survey results show that although customers of specific plant-based products tend to be satisfied, they also think that there are not enough plant-based options available in retail locations in almost every food category. The results of the survey also reveal that consumers want to see more variety in terms of product types, raw materials, textures, and flavours, as well as more products suitable for different types of lifestyles and use occasions. This lack of options suggests a great deal of potential when it comes to the development of plant-based products.

When respondents were asked which type of plant-based products they would like to see more of in supermarkets, plant-based cheese showed the highest potential demand in both diet groups (reducers and plant-based eaters). There is also a strong potential demand for plant-based ready meals, as stated by reducers and plant-based eaters. Reducers would also like to see more plant-based meat alternatives which mimic meat, whereas plant-based eaters would like more plant-based baked goods and chocolate. The results also reveal that, of all the categories, plant-based cheese was the category that consumers were the least impressed by in terms of taste, texture, and value for money. Generally, these findings suggest that there is a need for tastier plant-based cheese as well as improvements in several other product categories.

In terms of purchase drivers for plant-based foods, the most common reasons cited were curiosity to try new products, health benefits, trust in a brand, and taste. The finding that curiosity is a key reason for buying plant-based products is in line with results from a qualitative study that was conducted in spring this year by The Good Food Institute.[1] Animal welfare also played an important role for some consumers when considering their food choices, as has been shown in similar findings from previous studies [2 3 4] This suggests that future marketing approaches should bear in mind the positive effects of plant-based foods and consider utilising these claims on product packaging.

Looking at penetration rates, the survey results show that plant milk has the highest penetration of all the plant-based product categories, with more than 90% of respondents stating that they consume plant milk. When taking into account the fact that the majority of survey respondents were plant-based eaters, this is in line with results from other surveys, e.g. another survey determined that 43% of Europeans consume both plant milk and dairy-based milk.[5] However, the results also reveal that European countries vary in terms of their consumption of other plant-based food categories e.g. Belgium and the UK have the highest penetration rates for plant-based cheese, with 67% in both countries, while Danish and UK consumers purchase the most plant-based butter/margarine (80% in both countries).


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Plant-based seafood and egg alternatives, in particular, reveal major growth opportunities. Only 9% of reducers have already purchased and tried plant-based seafood, while, for egg alternatives, the consumption rate is even lower, at only 11%. Retailers wishing to penetrate new categories should focus on these products, as availability is currently very low. In the investment space, these two categories show strong potential for startups to launch innovative products in different formats. Finally, due to the fact that there are not many manufacturers of plant-based seafood or egg alternatives, there is great potential for traditional food companies to expand their product portfolios. It is worth pointing out that there are already quite a few options for egg replacements for baking applications, but almost no options for stand-alone egg alternatives, which thus represent a major market opportunity.

When it comes to product attributes (convenience, texture, taste, appearance, naturalness, price, and nutritional value), price was the main area of dissatisfaction for our sample consumers – including both plant-based eaters and reducers – in almost all product categories. This indicates that plant-based food products are perceived as being too expensive and that the food industry should lower the price point of their plant-based products, thus making them available to a broader consumer base.

[1] The Good Food Institute (April 2020): Antecedents of Alternative Protein Adoption, available at: https://www.gfi.org/images/uploads/2020/04/April-2020-Alt-Protein-Focus-Groups-Report.pdf

[2] Statista (18.06.2019): Out of the following, which are the most important aspects when choosing your food?, available at: https://www.statista.com/forecasts/998850/purchase-criteria-for-food-in-germany

[3] ComRes (May 2018): Eurogroup for Animals/Compassion in World Farming - Fish Welfare Survey, available at: http://www.comresglobal.com/wp-content/uploads/2018/06/EuroGroup_Final-tables.pdf

[4] Statista (05.02.2020): Which are the most important aspects when choosing your food?, available at: https://www.statista.com/forecasts/1093560/important-aspects-for-choice-of-food-in-the-us

[5] Cargill Dairy White Paper (2018): The shifting global dairy market, available at: https://drive.google.com/file/d/1MMx_Hza5CzYFo8UJreAfrkvvV8_-M1RB/view

Finally, this survey provides six key takeaways and recommendations that food industry and retailers should take into account:

1. Although customers of specific plant-based products tend to be satisfied, they nonetheless do not think that there are enough plant-based options available in any category.

Recommendation: Consider more plant-based options in all product categories.

2. Our survey results reveal that plant-based cheese, in particular, was perceived as being in need of improvement in terms of several attributes, including taste, price, etc. There is also strong potential demand for plant-based ready meals, plant-based meat alternatives which mimic meat, and plant-based baked goods and chocolates.

Recommendation: Focus on making plant-based cheese tastier, as well as expanding the availability of plant-based ready meals, plant-based meat alternatives which mimic meat, and plant-based baked goods and chocolates.

3. Price is the main area of dissatisfaction, for both reducers and plant-based eaters, in almost all products categories.

Recommendation: Try to produce value-for-money products. By doing so, you will have access to a larger consumer base.

4. Curiosity to try new products, health benefits, trust in a brand, and taste were all important purchase drivers for our respondents. Some consumers also cited animal welfare as a reason for purchase, which should also be taken into account when thinking about marketing and packaging.

Recommendation: Think about how claims on packaging could be used to reach target groups.

5. Although plant milk has a high penetration in several European markets, consumption of other plant-based food categories varies significantly between the different countries.

Recommendation: Take national preferences into account since the 'one size fits all' approach does not work.

6. Plant-based seafood and egg alternatives both currently have low consumption rates, especially for reducers. As there are not yet many manufacturers of these products, these two sub-sectors represent valuable business opportunities.

Recommendation: Consider launching plant-based seafood and egg alternatives, especially stand-alone egg products.

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INTRODUCTION

Plant-based products have improved significantly since they were first introduced to the market, and have in recent years become more attractive to a wider consumer base. However, improvements in taste and texture are still needed since these attributes are key drivers behind purchase decisions.[6] While it is true that plant-based products have always existed, taste and price have long been seen as barriers to purchase by non-vegetarians and -vegans.[7] While these products have become much more appealing, there is still a need to further improve taste and texture.

Increasing awareness of the benefits of a plant-based focused diet, along with the fact that most major retailers have rapidly expanded their shelf space and private-label ranges with new plant-based products, underlines the growth in the sector.[8] Many restaurants, casual dining venues, and fast-food chains now have dedicated 'meat-free' options on their menu, as the popularity of plant-based products continues to increase.[9]

In order to understand consumers' opinions about current plant-based products in all food categories, as well as their availability in regional supermarkets, ProVeg International ran an online consumer survey in nine European countries. The survey's objective was to uncover priorities for product improvement and development, based on consumers' experience of purchasing and consuming plant-based products. The survey was conducted between April and November 2019.

This analysis is based on data from nine markets: the UK, Germany, Austria, France, Belgium, the Netherlands, Switzerland, Denmark, and the Czech Republic. The survey was completed by respondents recruited by ProVeg in Germany and the Netherlands, and by partner organisations in the other countries: Veganuary (in the UK), EVA (Belgium), Vegane Gesellschaft Österreich (Austria), Association Végétarienne de France (France), the Vegetarian Society of Denmark (Denmark), Swissveg (Switzerland), and the Czech Vegan Society (Czech Republic).

We received complete responses from 6,221 respondents, of whom 4,746 consume only or mainly plant-based foods (hereafter referred to as 'plant-based-diet followers') and 1,475 are reducing or trying to reduce their consumption of animal-based products (hereafter referred to as 'reducers'). We only analysed responses from consumers that, in the previous three months, purchased and consumed any kind of plant-based alternative to meat, dairy, fish/seafood and/or eggs or any alternative to products which contain meat, dairy, fish/seafood and/or eggs, specifically from a store (and not online). This had the natural consequence that more plant-based eaters than reducers were included in our analysis. Also, only respondents who do the shopping for the household have been included. The following graph shows the number of respondents from each country, with figures for plant-based eaters and reducers shown separately.

[6] Kerry (2019): Meat, the Challenge. Breaking through Plant-Based Barriers, available at: https://kerry.com/na-en/explore/meat-the-challenge-report

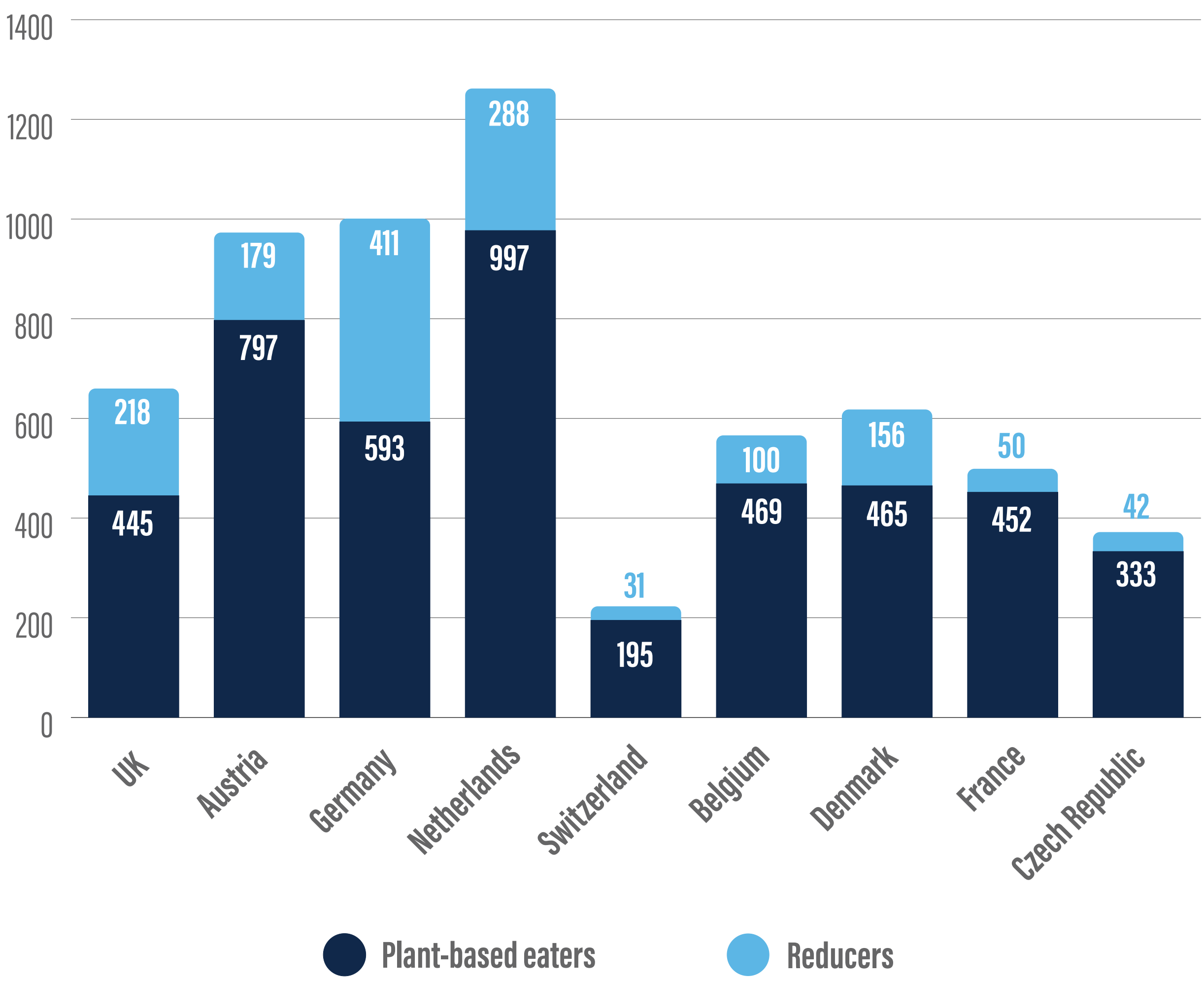
[7] Rosenfeld and Tomiyama (2020): Taste and health concerns trump anticipated stigma as barriers to vegetarianism, available at: https://www.sciencedirect.com/science/article/pii/S0195666319310384

[8] Albert Schweizer Stiftung (31.01.2019): Supermärkte im Vegan Ranking, available at: https://albert-schweitzer-stiftung.de/aktuell/supermaerkte-vegan-ranking

[9] ProVeg International (10.01.2019): ProVeg Ranking 2018: Die größten Restaurantketten im Vegan-Check, available at: https://proveg.com/de/blog/restaurantketten-ranking/

Picture by Presmaster, Shutterstock

SAMPLE SIZE FOR PLANT-BASED EATERS AND REDUCERS ACROSS THE DIFFERENT COUNTRIES



Given the fact that the number of respondents following a plant-based diet is higher than the number of reducers, our sample has a much higher proportion of informed consumers than the general population These consumers have already purchased various plant-based products and can thus make a more informed evaluation of the offerings on supermarket shelves. As a result, food producers and retailers can profit from the experiences of consumers already active in the plant-based sector, in order to shape their product portfolio.

In terms of the products analysed, this study focuses specifically on consumers' preferences for plant-based alternatives to meat and dairy, as well as other plant-based products such as egg substitutes, sauces and dressings, ready meals, baked goods and chocolates, and sports nutrition products. The global meat and dairy market is currently experiencing unprecedented levels of competition and disruption, driven mainly by the growth of viable plant-based alternatives across numerous categories.[10 11] The days when plant-based alternatives were niche consumer categories and occupied limited shelf space are long gone. Companies are now investing deeply in acquiring and creating new products and brands in order to take advantage of the growing consumer demand for plant-based products.[12 13 14]

[10] Markets and Markets (May 2019): Plant-based Meat Market, available at: https://www.marketsandmarkets.com/Market-Reports/plant-based-meat-market-44922705.html?gclid=EAIaIQobChMIos2j9dCF5gIVyeJ3Ch1Z5gKsEAAYASAAEgJedfD_BwE AEgJedfD_BwE

[11] Arizton (Report Buyer) (3/2019): Non-Dairy Milk Market - Global Outlook and Forecast 2019-2024, available at: https://www.reportbuyer.com/product/5758037/non-dairy-milk-market-global-outlook-and-forecast-2019-2024.html?utm_source=PRN l?utm_source=PRN

[12] SPINSscan data commissioned by GFI (1) (3/2020), available at: https://www.gfi.org/marketresearch

[13] Nielsen data commissioned by Plant based Foods Association (2018), available at: https://plantbasedfoods.org/marketplace/retail-sales-data-2018/

[14] European Commission (25.02.2019): New opportunities for the EU plant protein market, available at: https://ec.europa.eu/info/news/new-opportunities-eu-plant-protein-market-2019-feb-25_en

EUROPEAN MARKET OVERVIEW

A strong increase in plant-based-food consumption was observed throughout Europe, with different countries showing different rates, and with consumer responses being fairly mixed.[15] This development reflects a culturally diverse Europe that is finding ways to adapt traditional cuisines to the growing number of people who are eating more plant-based foods. Each of the nine countries we looked at has its own culture, cuisine, and attitude towards the new and the different. As each nation in Europe is unique, so are its plant-based eaters and their consumer behaviours. ProVeg has gathered illustrative data on how these countries, which constitute some of the most intriguing and energetic plant-based markets in Europe, are taking up this fundamental shift in food consumption in different ways.

In spite of the increased availability of plant-based alternatives, the survey results show that the supply side and the industry is still in a relatively early stage in terms of market penetration, and there is thus substantial room for additional growth.[16] [17] It is expected that the industry's overall reach will increase in the coming years due to new product developments and rising consumer demand.

The demand for plant-based products in Europe continues to expand, as can be seen by the increasing value of sales in the sector.[18] [19] [20] [21] [22] It should be noted that this might be a reflection of the relative wealth of the average European customer, particularly in the countries surveyed, as cost is often a key barrier to purchasing plant-based alternatives due to the premium price attached to many products. In the survey, we asked respondents to rate their level of satisfaction for each plant-based product in terms of taste, texture, convenience, nutritional value, naturalness, appearance, and price. Of all the criteria, price had the lowest level of satisfaction across the different product categories.

[15] IRI (02.10.2019): Healthy eating trend boost for vegetarian, free-from and organic food producers, available at: https://www.iriworldwide.com/de-de/insights/news/healthy-eating-trend-boost-for-vegetarian,-fre-(1)

[16] SPINS (2019): Dollar sales of plant based foods market U.S. 2017-2019, available at: https://plantbasedfoods.org/2019-data-plant-based-market/

[17] Research and Markets (March 2020): Post-Dairy Era: The Unstoppable Rise of Plant-based Alternatives, available at: https://www.researchandmarkets.com/reports/5008124/post-dairy-era-the-unstoppable-rise-of-plant?utm_source=dynamic&utm_medium=GNOM&utm_code=2s3rp9&utm_campaign=1378055+-+Post-Dairy+Era%3a+The+Unstoppable+Rise+of+Plant-based+Alternatives&utm_exec=cari18gnomd

[18] Markets and Markets (May 2019): Plant-based Meat Market, available at: https://www.marketsandmarkets.com/Market-Reports/plant-based-meat-market-44922705.html?gclid=EAIaIQobChMIos2j9dCF5gIVye-J3Ch1Z5gKsEAAYASAAEgJedfD_BwE

[19] Markets and Markets (January 2019): Dairy Alternative Market, available at: https://www.marketsandmarkets.com/Market-Reports/dairy-alternative-plant-milk-beverages-market-677.html

[20] GlobalData (2019): Retail sales value of vegetable/plant based protein meat substitutes in Western Europe in 2015 and 2018, with a forecast for 2019 and 2022, available at: https://www.statista.com/statistics/1076242/retail-sales-value-of-plant-based-meat-substitutes-in-western-europe/

[21] Allied Market Research (September 2019): Global Meat Substitute Market Expected to Reach $8.1 Billion by 2026, available at: https://www.alliedmarketresearch.com/press-release/global-meat-substitute-market.html

[22] Mintel (30.07.2018): Germany continues to dominate global vegan new product development, available at: https://www.mintel.com/press-centre/food-and-drink/germany-continues-to-dominate-global-vegan-new-product-development

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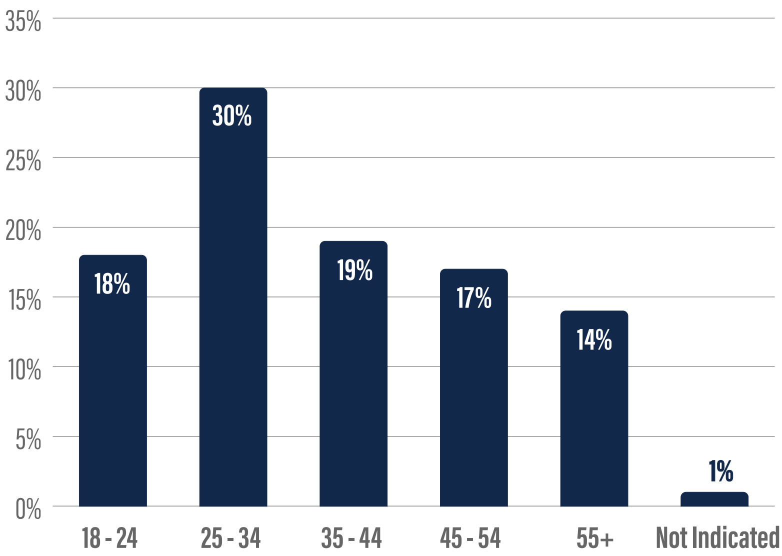
Looking at the demographics of the respondents analysed, 30% were aged between 25 and 34 (as shown in the graph below), while the majority were below the age of 44. There were no significant differences between reducers and plant-based eaters in terms of age groups. In general, there was a high proportion of plant-based eaters in each age group, consistent with the fact that they comprised 76% of respondents.

Age of respondents



Our research results confirmed that plant-based eating is still more common among women than men.[23 24 25] This has specific marketing and strategy implications, including the need to acquire more male customers for future markets. The survey shows that 78% of respondents who described their diets as plant-based were women. However, the longstanding perception that plant-based eating is not masculine is changing with the increased prominence of male vegan athletes, bodybuilders, actors, etc. The documentary *The Game Changers* is an example of media that broadcasts the benefits of plant-based eating to a predominantly male target group.

The survey results also reveal that the degree of urbanisation of respondents varies from country to country. For example, respondents from the UK came mostly from the countryside (48% of respondents stated that they live in a town or village), while, in Germany, most respondents lived in an urban environment (41% of respondents stated that they live in Berlin or in a large city that is not the capital). Respondents were given the following single-choice options:

- "I live in the capital city."
- "I live in a large city that is not the capital."
- "I live in a medium-sized city."
- "I live in a small city."
- "I live in a town/village."

When it comes to purchase drivers, results reveal that curiosity to try something new, health benefits, trust in a brand, and taste are important motivations to buy and consume plant-based products, while animal welfare is also a relevant driver for some of our respondents. These results suggest that there are various motivation drivers which should be taken into account when thinking about packaging, marketing activities, etc. More information about the motivations behind purchase decisions will be presented later in this report.

After having looked at the results that are common to all countries, the next section provides an overview of country-specific outcomes.

[23] YouGov (2019): Wie veggie ist Deutschland?, available at: https://yougov.de/news/2019/06/27/wie-veggie-ist-deutschland/

[24] Statista (20.12.2019): Umfrage zu Ernährungsgewohnheiten in Deutschland 2017, available at: https://de.statista.com/statistik/daten/studie/285466/umfrage/umfrage-zu-ernaehrungsgewohnheiten-in-deutschland/

[25] Quitoque; L'Espace Datapresse 2018: Among the following eating habits, which one describes you the best?

COUNTRY-SPECIFIC PERSPECTIVES

Although there are similarities across all markets, the survey results also reveal that consumers in each country show specific behaviors and preferences. The following table shows the results of the nine European countries that were analysed in this study, with purchase and consumption patterns across several plant-based categories indicated for each country.

Plant-based-product consumption rate per country

	All	Germany	UK	Austria	Belgium	France	Netherland	Swiss	Denmark	Czech Republic
Milk	93%	93%	97%	92%	94%	91%	90%	96%	95%	92%
Meat	81%	79%	89%	63%	85%	66%	89%	66%	86%	64%
Yoghurt	73%	72%	72%	74%	82%	80%	75%	76%	56%	77%
Butter/ margarine	71%	71%	80%	67%	73%	61%	72%	65%	80%	56%
Tofu or tempeh	69%	52%	57%	83%	79%	87%	69%	85%	55%	97%
Chocolate and baked goods	62%	68%	56%	75%	69%	67%	60%	72%	48%	65%
Ice cream	55%	48%	57%	64%	56%	41%	60%	70%	61%	56%
Cheese	55%	50%	67%	44%	67%	42%	54%	62%	50%	56%
Sauces and dressings	54%	34%	53%	44%	63%	36%	72%	52%	51%	54%
Ready meals/ grab-and-go meals	37%	39%	63%	32%	29%	38%	26%	24%	46%	32%
Other dairy	28%	32%	21%	29%	22%	39%	25%	36%	17%	40%
Sports nutrition products	21%	20%	17%	22%	19%	14%	23%	27%	16%	39%
Seafood	15%	11%	26%	14%	26%	8%	19%	18%	3%	4%
Egg alternatives	12%	16%	10%	12%	15%	10%	12%	16%	7%	10%

Not surprisingly, plant-based milk has the highest consumption rate, compared to other categories, varying only minimally across the different markets, with upwards of 90% of people in all countries having consumed it in the previous three months. However, the purchase and consumption of other plant-based dairy products vary widely across the European nations surveyed, with consumption rates of plant-based cheese being the highest in the UK and Belgium (67% in both countries, respectively), and the lowest in France (with 42%), probably due to the devotion of French people to dairy-based cheese and the fact that plant-based cheeses seldom live up to their animal-based counterparts. Danish and UK consumers purchase the most plant-based butter/margarine (80% in both countries), at 9 percentage points higher than the all-markets average (71%), while the Danes consume the least plant-based yoghurt (56%), with a rate much lower than the all-markets average (73%). The consumption of meat alternatives features prominently in the Netherlands, Denmark, Belgium, and the UK, while Austria and Switzerland consume the most plant-based chocolates and baked goods, with 75% and 72% respectively – significantly higher than the all-market average of 62%. Plant-based ice cream also has the highest penetration in Switzerland and Austria, and the lowest in France and Germany. Penetration rate also varies substantially for plant-based ready meals and grab-and-go meals – from 63% in the UK, where retailers already stock a large range of plant-based ready-meal options, to 26% and 24% in the Netherlands and Switzerland, respectively. All other consumption rates can be seen in the table, and it will be well worth the time for food manufacturers to study the regional implications for the various product categories.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PLANT-BASED FOOD TRENDS IN GENERAL

The recent rapid and disruptive growth of the plant-based sector has been driven predominantly by the millennial generation and the emergence of 'flexitarian' consumers (people who still consume meat and dairy but are seeking to reduce their consumption levels), as well as increased numbers of vegetarians and vegans – as consumers respond to a combination of environmental, health, and ethical concerns.[26 27 28 29]

In the past, plant-based diets were mostly consumed by a relatively small number of vegetarians and vegans. Although the number of vegetarians and vegans has increased in recent years, the core growth in the plant-based market is driven by demand from flexitarians or 'reducers.'[30] Flexitarians' consumption

[26] The NPD Group (28.10.2019): Plant-based Foods: Will They Stay or Will They Go?, available at: https://www.npd.com/wps/portal/npd/us/news/press-releases/2019/plant-based-foods-will-they-stay-or-will-they-go/

[27] Forgrieve Janet (02.11.2018): The Growing Acceptance of Veganism, available at: https://www.forbes.com/sites/janetforgrieve/2018/11/02/picturing-a-kindler-gentler-world-vegan-month/#1acc99082f2b

[28] European Data Journalism Network: Europe is going veg, available at: https://www.europeandatajournalism.eu/eng/News/Data-news/Europe-is-going-veg

[29] https://www.iriworldwide.com/en-US/News/Press-Releases/IRI-Consumer-Connect-Survey-Finds-Younger-Millennials-Out-spending-Older-Cohorts-on-Food-and-Beverage

[30] The Food Industry Association (22.10.2019): How the Rise of "Flexitarians" is Powering Plant-Based Sales, available at: https://www.fmi.org/blog/view/fmi-blog/2019/10/22/how-the-rise-of-flexitarians-is-powering-plant-based-sales

patterns either take the form of plant-based substitutes or meal choices that are free of meat and/or dairy. According to a recent study from Euromonitor, meat reduction is a far bigger trend than complete meat avoidance. This finding emphasises the importance of flexitarians in the plant-based sector.[31]

There are various factors driving the switch towards plant-based products, including significant media coverage of the impact of meat and dairy production on global warming and resource consumption, as well as numerous reports on the potential links between the high consumption of processed or red meat and some forms of cancer and cardiovascular disease.[32] [33]

Many plant-based-alternative producers are seeking to address barriers which prevent traditional meat-eating consumers from choosing plant-based alternatives: including the perceived lack of exciting flavours, as well as dissimilarities to the taste and texture of meat and dairy products. In order to continue to grow the market and appeal to the core meat-eater market, plant-based products need to be made more attractive to these consumers. A lot more consumers would be encouraged to try plant-based meat alternatives if there were more exciting flavours available, and if the alternatives had the same texture and taste as meat and dairy products.

INSIGHTS

- Plant-based eating in the general population is a recent and ongoing development that is leading to a fundamental shift in food consumption.
- Curiosity to try something new, health benefits, brand trust, and taste were the key motivating factors for plant-based consumption in our sample.
- Animal welfare is also a relevant factor.
- In recent years, there has been a big increase in non-vegans (flexitarians and reducers) who are interested in reducing their consumption of animal-based products in favour of plant-based alternatives.
- Since repurchase decisions are based on taste, it's important to offer a delicious product at an appealing price point with effective distribution.


Picture by Meet Jack

[31] Euromonitor (June 2019): Driving Forces Behind Plant-Based Diets: Climate Concern and Meat Reduction, available at: https://www.euromonitor.com/driving-forces-behind-plant-based-diets-climate-concern-and-meat-reduction/report

[32] Food Bev (06.01.2020): Five major trends driving the plant-based food market, available at: https://www.foodbev.com/news/five-major-trends-driving-the-plant-based-food-market/

[33] Nutrients (2020): Influence of Alcohol and Red Meat Consumption on Life Expectancy: Results of 164 Countries from 1992 to 2013, available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7071474/pdf/nutrients-12-00459.pdf

Another key to unlocking further growth in the plant-based-food sector is increasing the development of innovative alternatives. A key barrier to consumption by meat and dairy consumers is the lack of similarity in taste and texture to traditional meat and dairy products. Despite the significant improvements made in the taste, texture, and variety of plant-based alternatives,[34] this remains a barrier to regular consumption by people who are used to eating animal-based products. While the plant-based milk sector has made massive inroads in attracting traditional consumers,[35] in most product categories there is still a strong need for improvement.

As the market for plant-based alternatives grows, a wider range of ingredients are being used in order to broaden the product range. These ingredients are often used because of their ability to provide the consumer with high levels of protein and nutritional value, as well as for their functional properties. However, while these factors are important, a primary focus should be placed on taste. "The fact that I eat vegan does not mean that I basically want to eat totally healthy. For example, there is no good (plant-based) vanilla ice cream," stated one of the German survey respondents. In the dairy-alternatives market, there has been a huge increase in the variety of ingredients used to produce milk alternatives, including soya, oat, coconut, rice, pea, hemp, and numerous kinds of nuts, etc.[36] The wider variety of ingredients allows the consumer more choice and more exciting flavours. Ingredients such as pea, fava bean, hemp, sunflower seeds, chickpea, duckweed, algae, and mushroom, as well as ancient grains such as quinoa or amaranth, are increasingly in demand.[37] When making any investment in the plant-based sector, careful consideration of the particular plant-based protein source is important. The rising demand for innovative products requires a significant increase in new product development across all food categories. Innovation gives consumers a wider choice of products and brands, and allows plant-based products to gain increased shelf space and recognition.


Picture by Oleksandra Naumenko, Shutterstock

Looking at the survey results, the main area of dissatisfaction with almost all plant-based alternative products is price. Many respondents complained that following a plant-based diet costs more because plant-based alternatives are normally too expensive in comparison to conventional products. "Most plant-based alternatives are too expensive for my budget," responded a UK consumer. Our survey showed that, despite the fact that respondents generally earn a good income, they were nonetheless dissatisfied with the prices of plant-based alternatives. When we consider that broader society consists largely of more price-sensitive consumers who are less responsive to ethical or environmental motivations, we can see that price points are a key sticking point in the shift towards plant-based eating.

[34] ATKearney (2019): How will cultured meat and meat alternatives disrupt the agricultural and food industry?

[35] Forbes (19.08.2019): Non-Dairy Milk Alternatives Are Experiencing A 'Holy Cow!' Moment, available at: https://www.forbes.com/sites/briankateman/2019/08/19/non-dairy-milk-alternatives-are-experiencing-a-holy-cow-moment/#4706fd014c44

[36] Nielsen (08.03.2018): A showdown in the U.S. Milk aisle continued at the end of July, available at: https://www.nielsen.com/us/en/insights/article/2018/a-showdown-in-the-us-milk-aisle-continued-at-the-end-of-july/

[37] Mintel (02.08.2019): You heard it here first: the plant-based revolution, available at: https://www.mintel.com/blog/food-market-news/you-heard-it-here-first-predicting-the-plant-based-revolution

MISSING PRODUCTS

Supermarkets have responded to the growth in the market and are significantly increasing shelf space given to plant-based products.[38] While branded products tend to be the dominant players in the dairy-free-alternatives market, with large corporates and disruptor brands dominating shelf space, supermarkets have also entered the meat- and dairy-free sectors by launching own-brand plant-based products or incorporating more plant-based options into their private-label ranges.

However, there are still products that consumers are either missing or want to see more of. When we asked respondents which type of plant-based products they would most like to see more of in supermarkets, plant-based cheese shows the highest potential demand, followed by plant-based ready meals, plant-based baked goods and chocolates, and meat alternatives that mimic meat. Respondents also mentioned numerous specific products and product categories, of which more detailed results will be presented later in the report.

[38] Deloitte LLP(2019):Plant-based alternatives.Driving industry M&A, available at:
https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consumer-business/deloitte-uk-plant-based-alternatives.pdf

Picture by Pikoso.kz, Shutterstock

PRODUCT-SPECIFIC FINDINGS

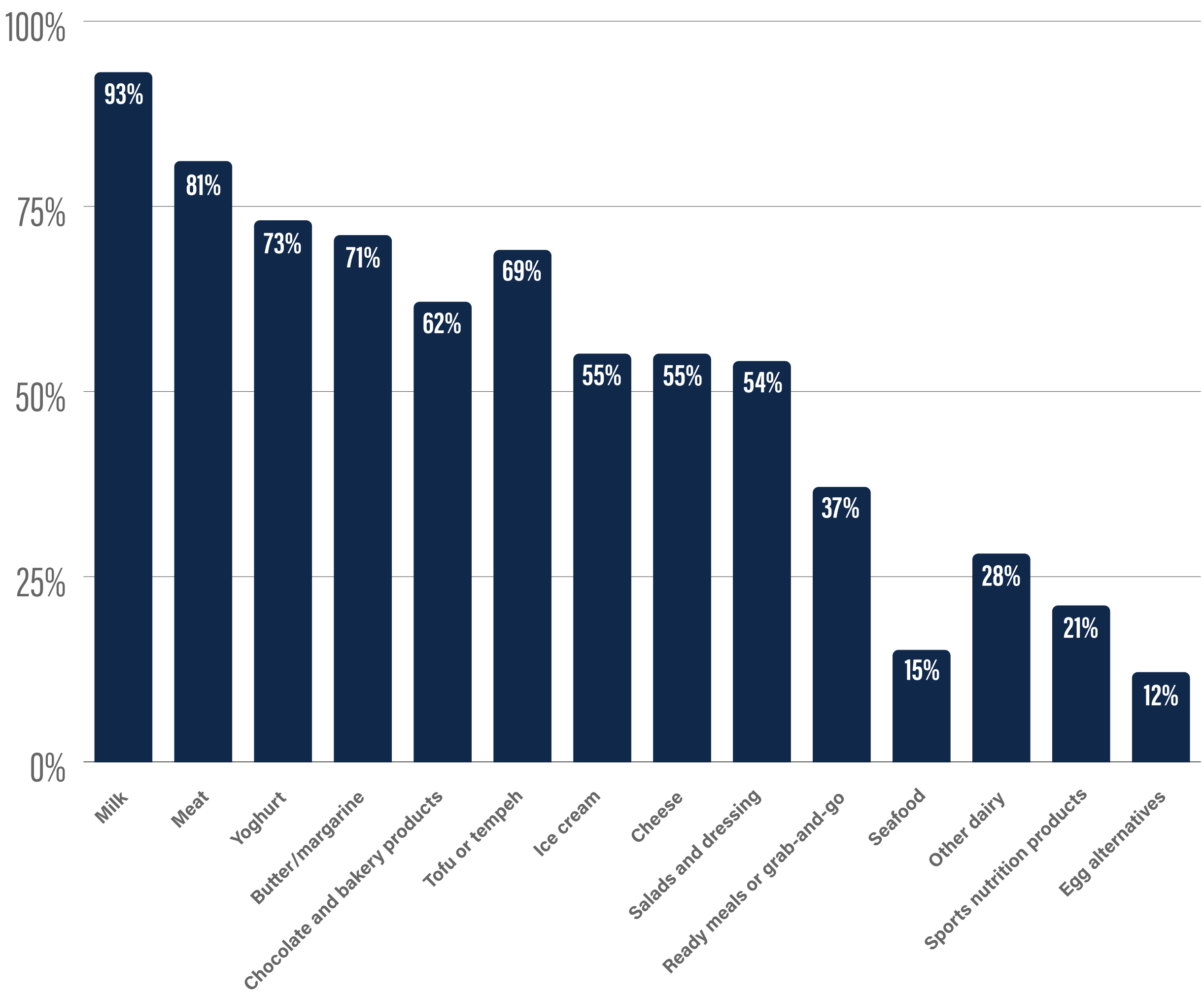
We asked consumers about their purchase and consumption habits in relation to different plant-based product categories, their satisfaction with the status quo, and which of their expectations are still not met. The findings of the main product categories are presented below.

ALL PRODUCT CATEGORIES

Consumption status

In response to the question "Which of the following plant-based alternative products have you recently purchased and consumed?", 93% of respondents answered that they bought plant-based milk, as shown in the figure below, making plant-based milk the most popular plant-based product currently available. The next most-purchased plant-based product, with a gap of 12 percentage points, is plant-based meat (81%), followed by plant-based yoghurt (73%). Only 15% of respondents purchase and consume plant-based seafood, suggesting strong potential for product development in this area. Egg alternatives exhibit the lowest penetration rate, at only 12%, which again suggests great potential for expanding this sub-sector. This is supported by the projection that the global value of the egg-alternative-and-replacement market is expected to exceed $1.62 billion by 2025, with a CAGR of 5.8%.[39]

Consumption rates of food categories



[39] Zion Market Research (04.02.2019): Egg Replacement Ingredients Market by Type (Dairy Protein, Starch, Algae Flour, Soy-Based Products, and Others), by Application (Bakery & Confectionery, Mayonnaise & Sauces, and Others), by Form (Solid and Liquid), and by Source (Plant and Animal): Global Industry Perspective, Comprehensive Analysis, and Forecast, 2018—2025, available at: https://www.zionmarketresearch.com/report/egg-replacement-ingredient-market

We asked reducers why they purchase plant-based dairy, meat/fish, and other plant-based products.[40] Only reducers/flexitarians were asked this question due to the fact that they are a more diverse target audience and, as such, their purchase drivers are particularly relevant when it comes to guiding the development of new products that will appeal to the broader population.

THE MOST COMMONLY REASONS STATED WERE:

- "I wanted to try something new."
- "It seemed healthy and nutritious."
- "I like and trust the brand."
- "It looked tasty."


Picture by Brent Hofacker, Shutterstock

Curiosity and an interest in trying novel products has also been identified in other studies as a key reason why consumers are triggered to try plant-based products.[41] Animal welfare plays also an important role for some consumers.[42] These results are supported by other studies which show that health, animal welfare, and the environmental impacts of food choices are among the main motivators for reducing meat consumption, following a plant-based diet, and choosing more sustainable food items.[43] [44] [45] [46] The finding that health and fitness play an important role when it comes to consumers' food purchase decisions is also consistent with previous findings.[47]

More in-demand products

We asked consumers which type of plant-based products they would most like to see more of in supermarkets, giving them 16 options in a single-choice question. The charts below show the number of consumers that most wanted to see more of each product category for each diet group (reducers and plant-based eaters) respectively. Plant-based cheese was by far the most often selected by respondents in both diet groups. Reducers then wanted to see more plant-based ready meals, followed by plant-based meat alternatives which mimic meat, plant-based baked products and chocolates, and plant-based egg alternatives. Plant-based eaters, however, expressed slightly different preferences. In their case, plant-based cheese was followed by plant-based baked goods and chocolates, plant-based ready meals, tofu and tempeh, and plant-based meat alternatives which mimic meat. These results suggest that plant-based cheese shows the most potential in terms of both diet groups (reducers and plant-based eaters), although the results also reveal that there is extensive potential demand in all product categories.

[40] For each category they could choose only one reason, so they might end up with the same reason for every three categories or a different reason for each category. On average people had almost two reasons.

[41] The Good Food Institute (April 2020): Antecedents of Alternative Protein Adoption, available at: https://www.gfi.org/images/uploads/2020/04/April-2020-Alt-Protein-Focus-Groups-Report.pdf

[42] Animal Welfare: Issues and Opportunities in the Meat, Poultry, and Egg Markets in the U.S. https://blog.marketresearch.com/animal-welfare-an-increasing-concern-for-consumers

[43] Janssen, M., C. Busch, M. Rödiger M. Rödiger, U. Hamm (2016): Motives of consumers following a vegan diet and their attitudes towards animal agriculture. Appetite. 105, p.643–651

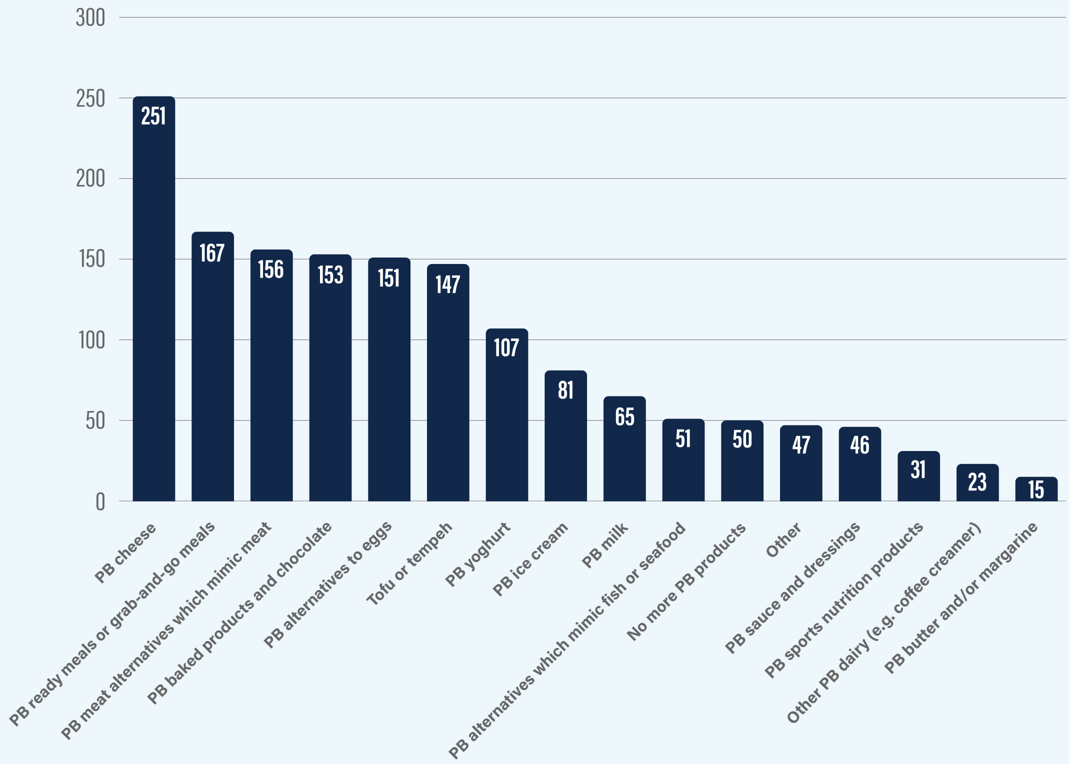
[44] Hopwood, C. J., W. Bleidorn, T. Schwaba, S. Chen, V. Capraro (2020): Health, environmental, and animal rights motives for vegetarian eating. PLOS ONE. 15, p.e0230609

[45] De Backer, C. J. S. & L. Hudders (2014): From Meatless Mondays to Meatless Sundays: Motivations for Meat Reduction among Vegetarians and Semi-vegetarians Who Mildly or Significantly Reduce Their Meat Intake. Ecology of Food and Nutrition. 53, p.639–657

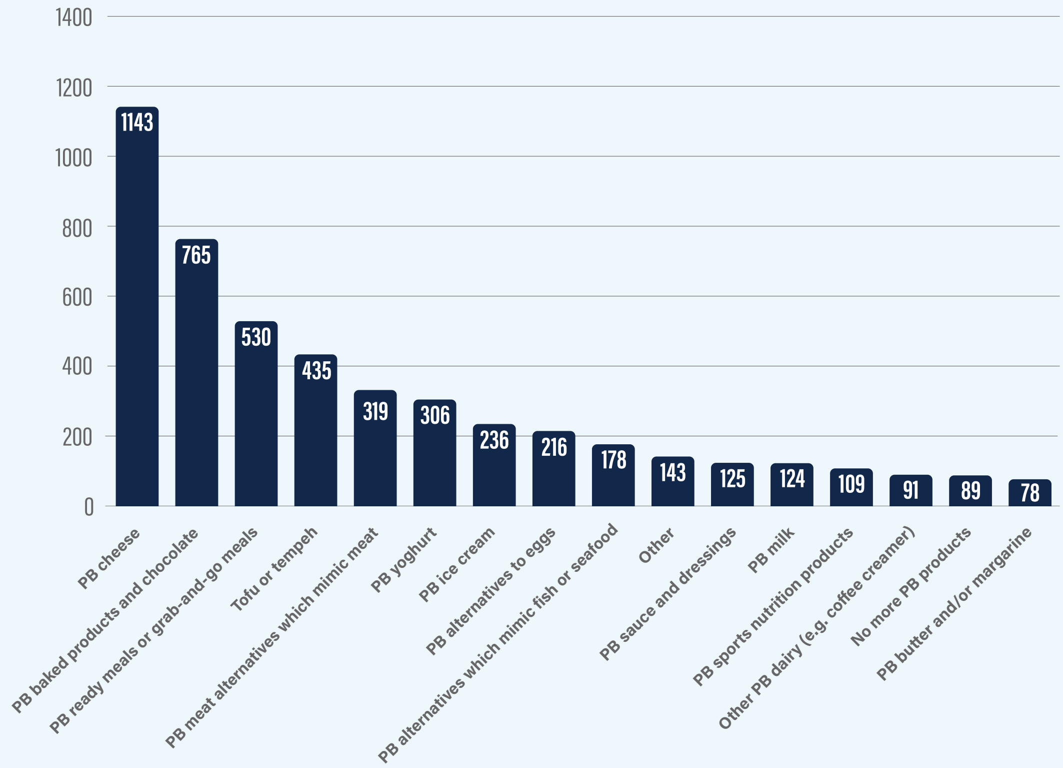
[46] Kersche-Risch, P. (2015): Vegan diet: motives, approach and duration. Initial results of a quantitative sociological study. Ernahrungs Umschau. p.98–103 doi:10.4455/eu.2015.016

[47] Deloitte (22.07.2016): The changing drivers that influence consumer behaviour, available at: https://www2.deloitte.com/za/en/footerlinks/pressreleasespage/the-changing-drivers-that-influence-consumer-behavior.html#

Product categories that reducers most wanted to see more of in supermarkets



Product categories that plant-based eaters most wanted to see more of in supermarkets



DAIRY PRODUCTS

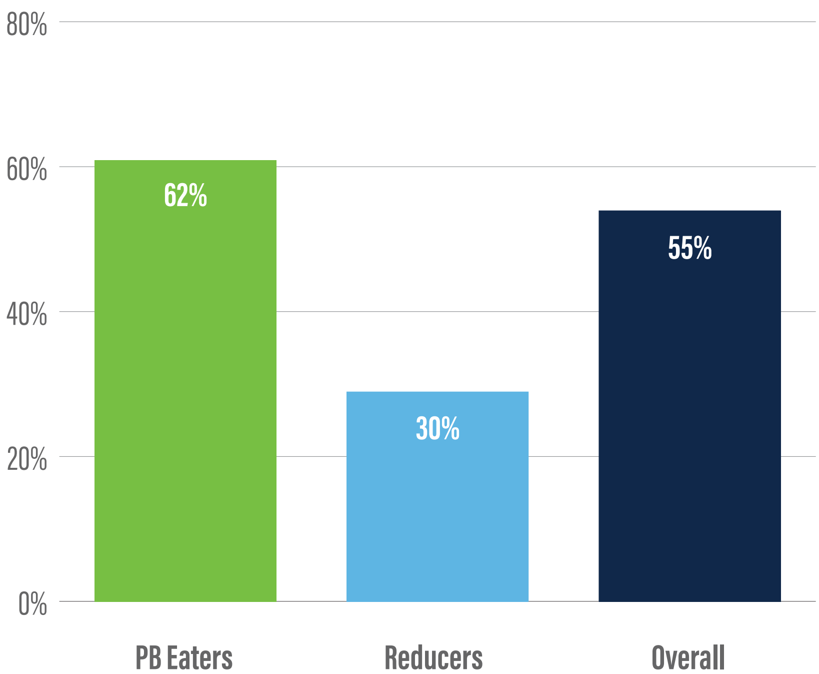
Dairy consumption varies widely across Europe, with product preferences also varying in terms of attributes such as convenience, nutrition, texture, and price. As the dairy industry adapts to plant-based trends, it is expected that those cultural preferences would be reflected in the increased popularity and availability of specific plant-based alternatives. This section shows the results of our survey for cheese, milk, and other dairy products (e.g. yoghurt, butter/margarine).


Picture by Gcapture, Shutterstock

Cheese

Consumption status

Plant-based milk has truly entered the mainstream, no longer appealing to plant-based-diet followers alone but purchased by all kinds of consumers.[48] [49] However, the same cannot be said of plant-based cheese, which is relatively commonly purchased by plant-based-diet followers but far less so by reducers (See the graph below). More than half of the respondents (55%) purchased and consumed plant-based cheese in the last three months, although the rate is much lower (30%) for reducers, with less than one in three reducers purchasing and consuming plant-based cheese.



While there are quite a few different kinds of plant-based cheese out there, they are not always accessible, affordable, or tasty.[50] Most of the current plant-based cheese products on the market consist mostly of oil and starch, resulting in undesirable perceptions of their nutritional profile. The more expensive options are based on fermented nuts, which makes them tastier but less attractive to price-sensitive consumers. In addition, these nut-based cheeses currently mainly recreate soft cheeses, thus leaving a lot of room for new product innovations in the hard-cheese subsector where time is required for ageing, making new product development a lengthier process.

[48] Mintel (19.07.2019), Milking the vegan trend: a quarter (23%) of Brits use plant-based milk, available at: https://www.mintel.com/press-centre/food-and-drink/milking-the-vegan-trend-a-quarter-23-of-brits-use-plant-based-milk

[49] Sethi, S., Tyagi, S.K., Anurag, R.K. (2016): Plant-based milk alternatives an emerging segment of functional beverages: a review; Journal of Food Science and Technology

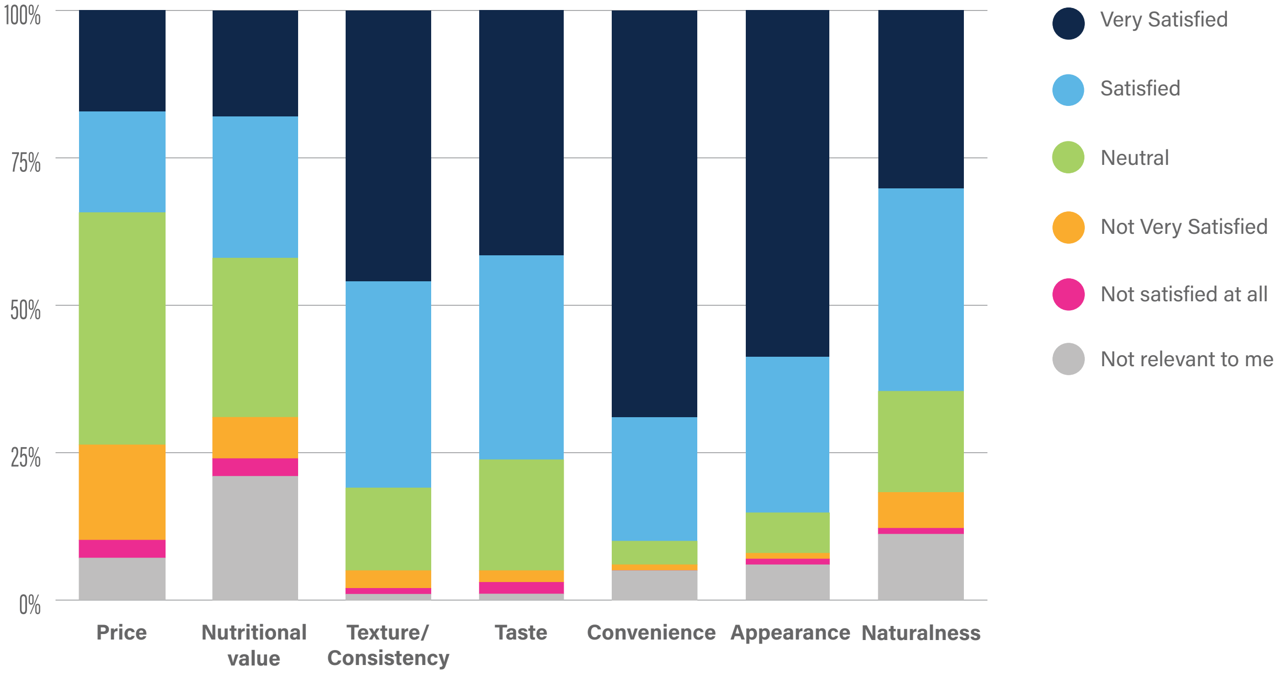
[50] Marketwatch (15.01.2020): Vegan cheese market key trends, opportunities & development factors to reach CAGR of 7.22% in 2023, available at: https://www.marketwatch.com/press-release/vegan-cheese-market-key-trends-opportunities-development-factors-to-reach-cagr-of-722-in-2023-2020-01-15

Of course, from a company's point of view, appealing to as many consumers as possible makes business sense, and if the taste, availability and affordability of plant-based cheese could be improved, as well as the number of different types of cheese expanded, there is no reason why plant-based cheese could not follow in the footsteps of plant-based milk and appeal to a variety of different types of consumers, creating value for the business and future-proofing it. The comparatively low penetration of this category, as well as the poor quality of the products currently available, make it an attractive segment for companies to innovate in, provided that they differentiate in ways that resonate with consumers.


Picture by ocphoto, Shutterstock

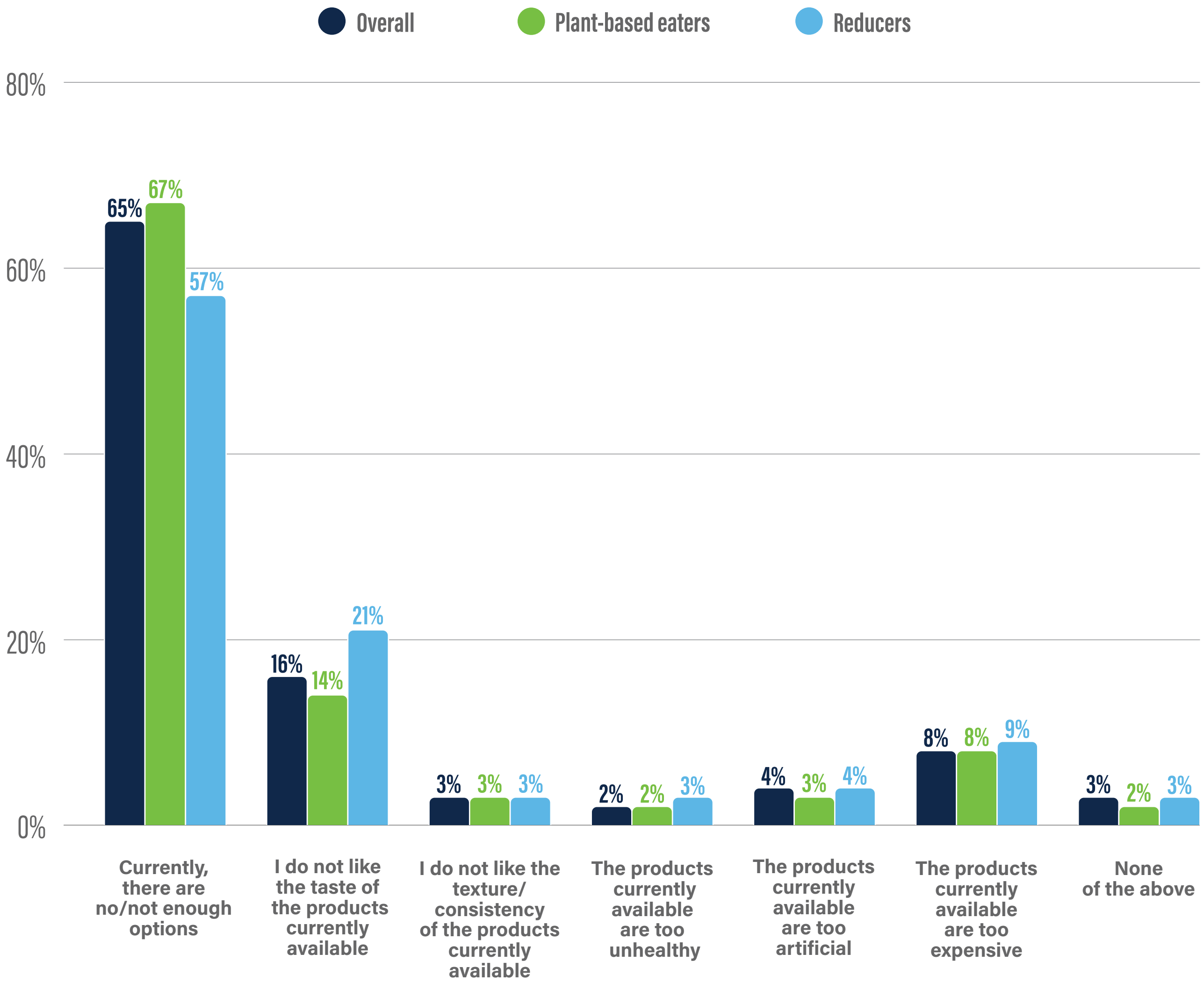
Satisfaction level in terms of plant-based cheese attributes

Of the 357 respondents who specified cheese as the plant-based dairy alternative option that they have most recently purchased and consumed, more than 60% were either dissatisfied or neutral (or stated "not relevant to me") when it came to the price of plant-based cheese. Consumers are less satisfied with the price of plant-based cheese than they are with the price of products in every other category, presumably because the price to sensory-experience ratio is very low. Nutritional value is not important to everyone when consuming plant-based cheese but among those for whom it is important, satisfaction levels are low compared to the other attributes measured. Taste and naturalness are other areas that still require improvement.



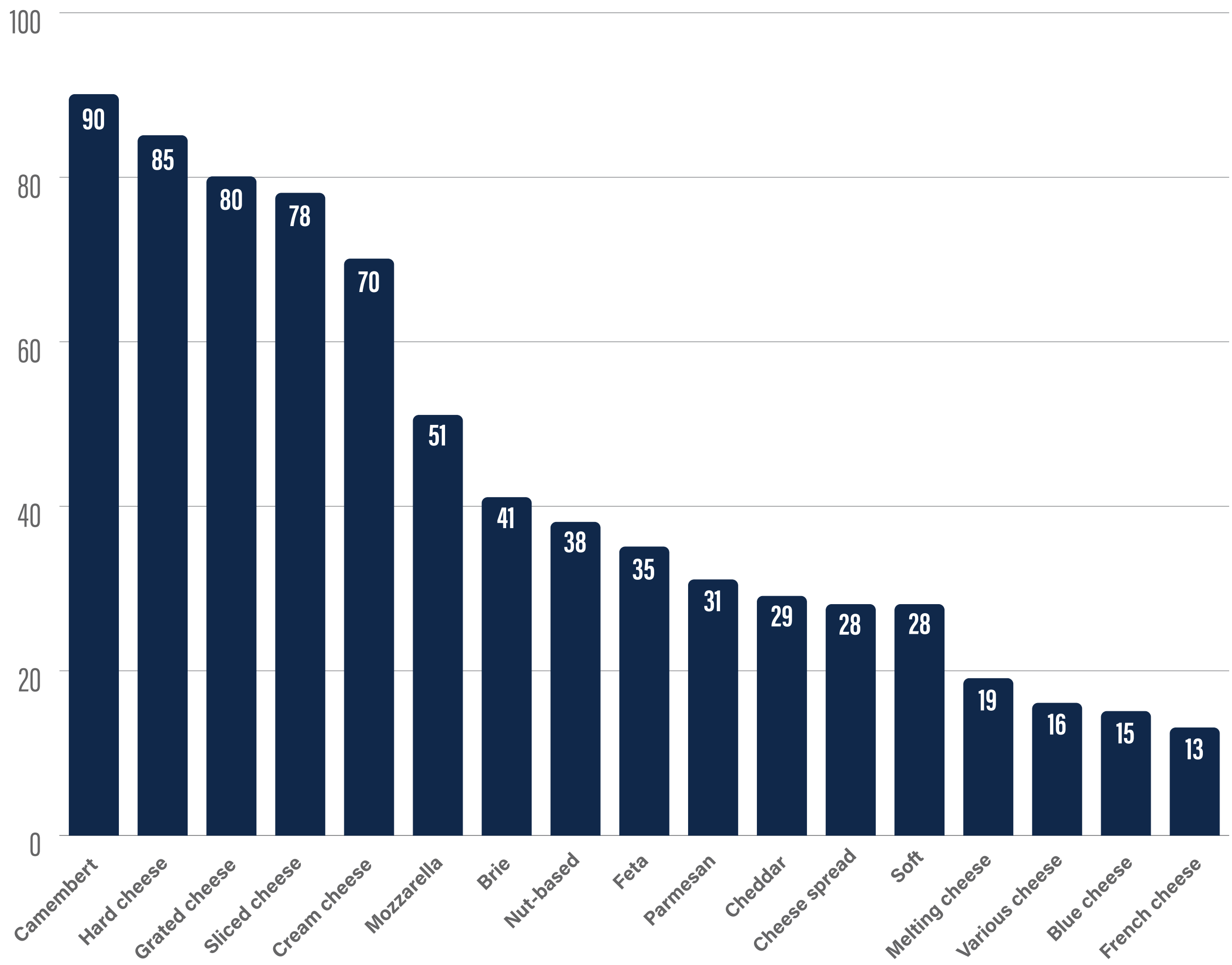
Reasons why consumers would like to see more plant-based cheese in the market

In response to the question "Why did you state that you would like to see more plant-based cheese in supermarkets?", nearly two thirds of respondents (65%) want to see more plant-based cheese in supermarkets because they think that there are too few options at present, as shown in the figure below. Nearly a quarter of reducers (21%) dislike the taste of currently available plant-based cheeses. Some plant-based eaters (14%) are also not satisfied with the taste, as shown below. Both groups also thought that products in this category were too expensive.



Specific cheeses that are more in demand

When we asked consumers to specify the types of plant-based cheese they would like to see more of, many people responded with a long list, suggesting that there is a strong appetite for good alternatives. Given European consumers' affinity for plant-based cheese, cracking the code here would be incredibly lucrative, while helping consumers of all kinds to achieve a higher intake of plant-based alternatives. The following graph indicates the specific types of cheese that consumers want to see more of in supermarkets.



Note: The graph above gives an impression of the general results and illustrates tendencies. It shows the responses to an open-ended question that was not included in all languages. People stated what kind of specific plant-based cheese products they would like to see more of in supermarkets. We can provide more information for the respective language/country on request.

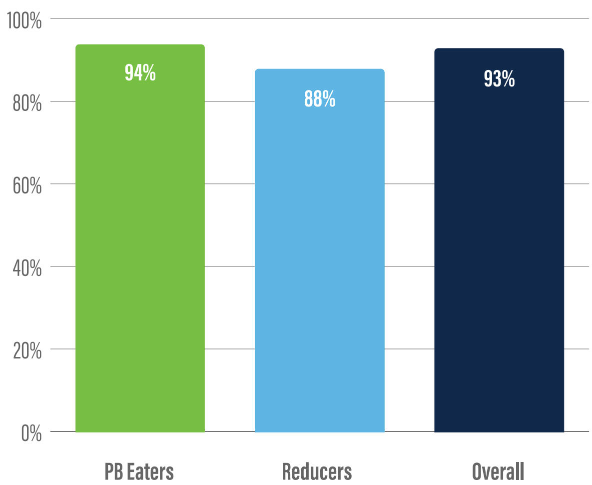
Picture by ocphoto, Shutterstock

PRODUCTS THAT CUSTOMERS WOULD LIKE TO SEE MORE OF IN SUPERMARKETS IN THE CHEESE CATEGORY

Milk

Consumption status

According to Research and Markets, revenue from the global non-dairy-milk sector is set to reach more than $38 billion by 2024, growing at a compound rate of more than 14% between 2018 and 2024.[51] As previously stated, plant milk has the highest penetration of all the plant-based product categories. More than 90% of respondents stated that they buy and consume plant-based milk (see graph below). Not surprisingly, plant-based eaters had a higher consumption rate (94%) than reducers, although nearly 90% of reducers bought or consumed plant-based milk, the highest among all product categories – which shows that plant-based milk is also widely accepted by reducers.

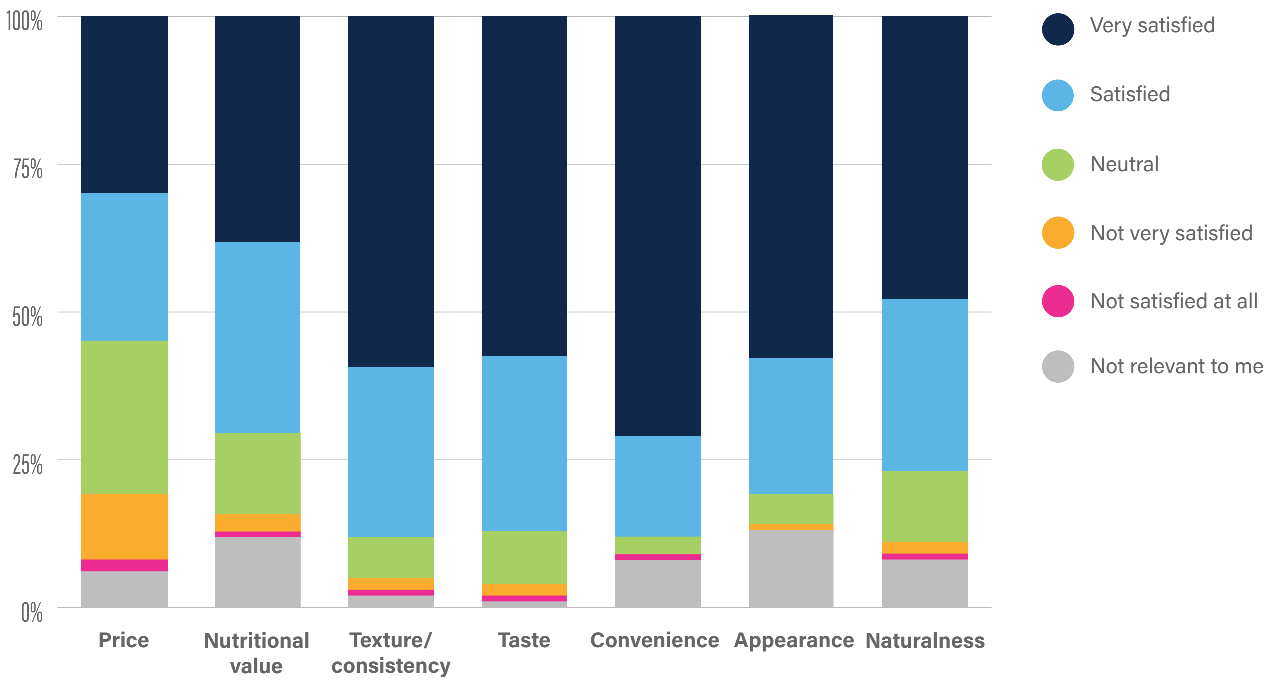


[51] Report Buyer (March 2019): Non-Dairy Milk Market - Global Outlook and Forecast 2019-2024, available at: https://www.reportbuyer.com/product/5758037/non-dairy-milk-market-global-outlook-and-forecast-2019-2024.html?utm_source=PRN

Picture by Pixel-Shot, Shutterstock

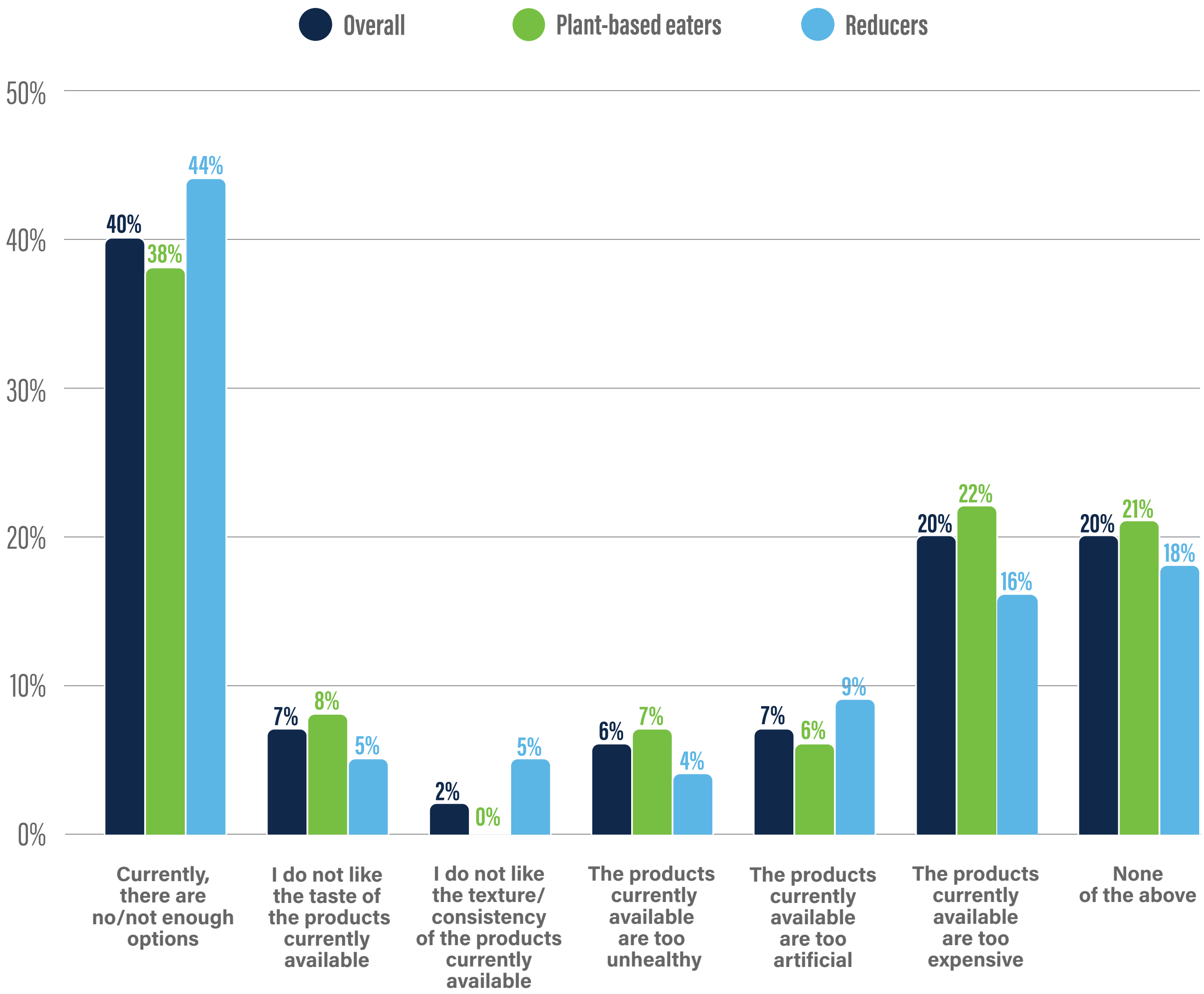
Satisfaction level in terms of plant-based milk attributes

Plant milk is one of the categories with which consumers are most satisfied, as reflected in its high consumption rate. As with several other categories, price is the main area of dissatisfaction for plant milk. 45% of respondents were either not satisfied with the price or were neutral (or stated "not relevant to me"), as can be seen in the graph below. After price, nutritional value and naturalness are two other areas in need of improvement. Levels of satisfaction for all areas are shown in the graph below.



Reasons why consumers would like to see more plant-based milk in the market

There are various different reasons why consumers would like to see more plant milk in supermarkets. The results of our survey reveal that, above all, there is a lack of options (see graph below), which is also the case for other product categories. 40% of respondents wanted more options on the shelves, with reducers being 6 percentage points more dissatisfied than plant-based eaters (44% of reducers stated that there are not enough options, versus 38% of plant-based eaters). The next most-frequently cited reason for wanting more plant-milk options is price. 20% of respondents found plant milk too expensive. The graph below also shows that the next most commonly cited reasons were 'taste' for plant-based eaters and 'being too artificial' for reducers.

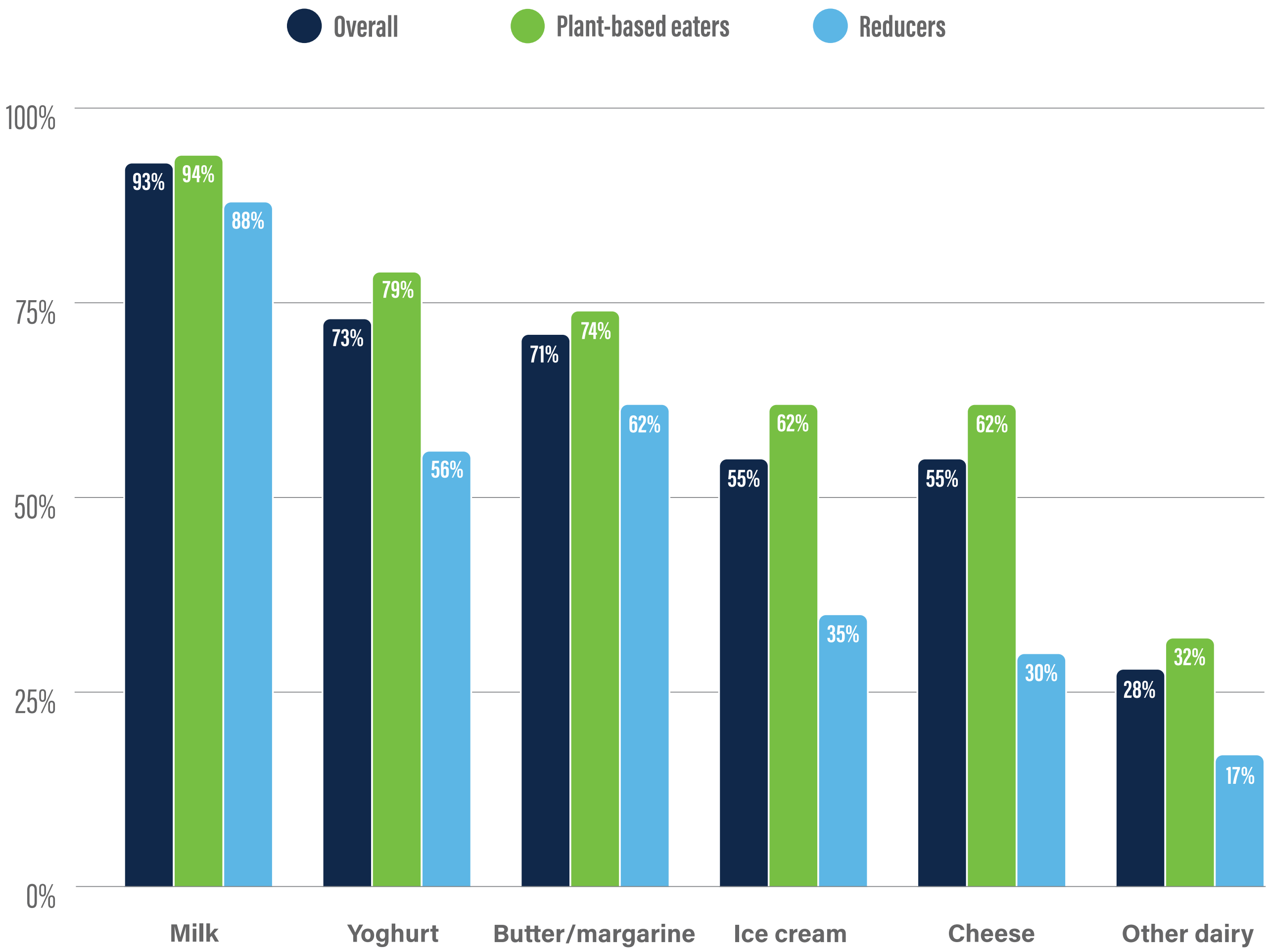


Picture by Dessy Dimcheva, Unsplash

Other dairy products

Consumption status

In addition to plant-based cheese and milk, our survey results reveal that plant-based yoghurt is an important category in the plant-based dairy category. Among our respondents, plant-based yoghurt was the third most-commonly bought item but this was largely driven by plant-based-diet followers. Reducers purchase less plant-based yoghurt than plant-based butter/margarine or meat alternatives, suggesting that plant-based yoghurts still do not meet their needs. While yoghurt is generally seen as a healthy product by many consumers, many of the most commonly available plant-based yoghurts are quite sugary and contain artificial ingredients, which could put people off from purchasing them. The graph below shows the penetration rate of different plant-based dairy products, both overall and separately for plant-based eaters and reducers. It shows a big gap between the consumption rates of plant-based eaters and reducers for cheese, ice cream, and yoghurt.



The difference between the number of reducers who recently purchased plant-based yoghurt (or plant-based cheese or ice cream), compared to plant-based-diet followers, suggests a need for an improvement in quality in order for reducers to consume these products at rates more similar to plant-based eaters, as is the case with milk and butter.

When comparing satisfaction between the two groups (plant-based eaters and reducers), it is clear that reducers rate plant-based yoghurts more negatively than plant-based-diet followers, particularly in the areas of taste and price, which makes sense as reducers have a wider selection of value propositions with which to compare potential purchases.

More in-demand products

When we asked respondents which plant-based dairy product they wanted to see more of in the supermarkets, some answered with just the general product category (such as plant-based yoghurt), while other respondents stated more specific products, such as coconut yoghurt. Among the different types of plant-based milk, oat milk is the most in demand.


Picture by Irina Grigoras, Unsplash

Consumption status

The market for plant-based meat-alternatives is predicted to double within the next 5 years. According to figures provided by Markets and Markets, the sector was valued at 12.1 billion US dollars in 2019 and is predicted to grow at an annual rate of around 15%, reaching almost 28 billion dollars by 2025.[52] In 2030, plant-based meat-alternatives and cultured meat will have a market share of nearly 30% of the 1.4 trillion-dollar global meat market, according to AT Kearney.[53] The plant-based fish and seafood market is currently in its infancy, with annual sales of only $10 million in the US.[54] The table below shows that over 80% of our sample had recently purchased meat alternatives which mimic meat, with no real discrepancy between reducers (83%) and plant-based-diet followers (81%). Compared to cheese, the motivation to replace animal-based meat with plant-based meat is higher, increasing the likelihood of reducers more positively evaluating meat alternatives. Additionally, the quality, variety, and availability of these products is superior to cheese – although not to milk. People's strong motivation to consume alternatives to animal meat represents an opportunity for businesses wanting to take advantage of gaps in the market and improve on competitors' products. On the other hand, seafood-alternative products have a lower penetration rate (15% for the overall sample) compared to meat alternatives which mimic meat, and there is a substantial difference between reducers and plant-based eaters (8%). There is also a significant difference between the consumption rate of tofu and tempeh for plant-based eaters (74%) versus reducers (55%).

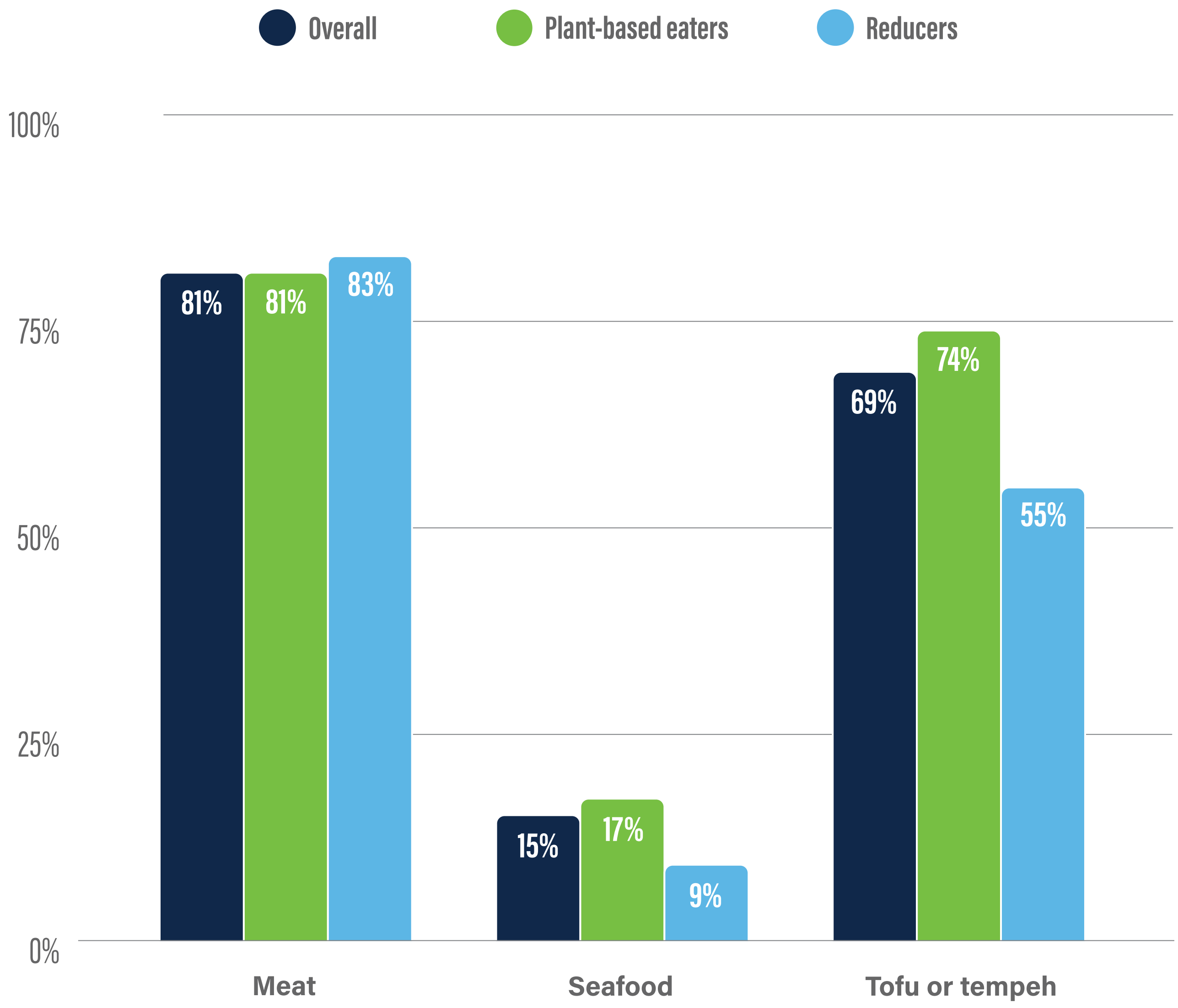

Picture by Better Nature

[52] MarketsandMarkets (May 2019):Plant-based Meat Market by Source (Soy, Wheat, Pea, Quinoa, Oats, Beans, Nuts), Product (Burger Patties, Sausages, Strips & Nuggets, Meatballs), Type (Pork, Beef, Chicken, Fish), Process, and Region - Global Forecast to 2025, available at: https://www.marketsandmarkets.com/Market-Reports/plant-based-meat-market-44922705.html?gclid=EAIaIQobChMIos2j9dCF5gIVyeJ3Ch1Z5gKsEAAYASAAEgJedfD_BwE

[53] AT Kearney (2019): How will cultured meat and meat alternatives disrupt the agricultural and food industry?, available at: https://www.kearney.com/documents/20152/2795757/How+Will+Cultured+Meat+and+Meat+Alternatives+Disrupt+the+Agricultural+and+Food+Industry.pdf/06ec385b-63a1-71d2-c081-51c07ab88ad1?t=1559860712714

[54] SeafoodSource (30.12.2019): Growth spurt: Business booms for plant-based seafood alternatives, available at: https://www.seafoodsource.com/news/foodservice-retail/growth-spurt-business-booms-for-plant-based-seafood-alternatives

Consumption rates of meat alternatives/plant-based seafood/tofu or tempeh

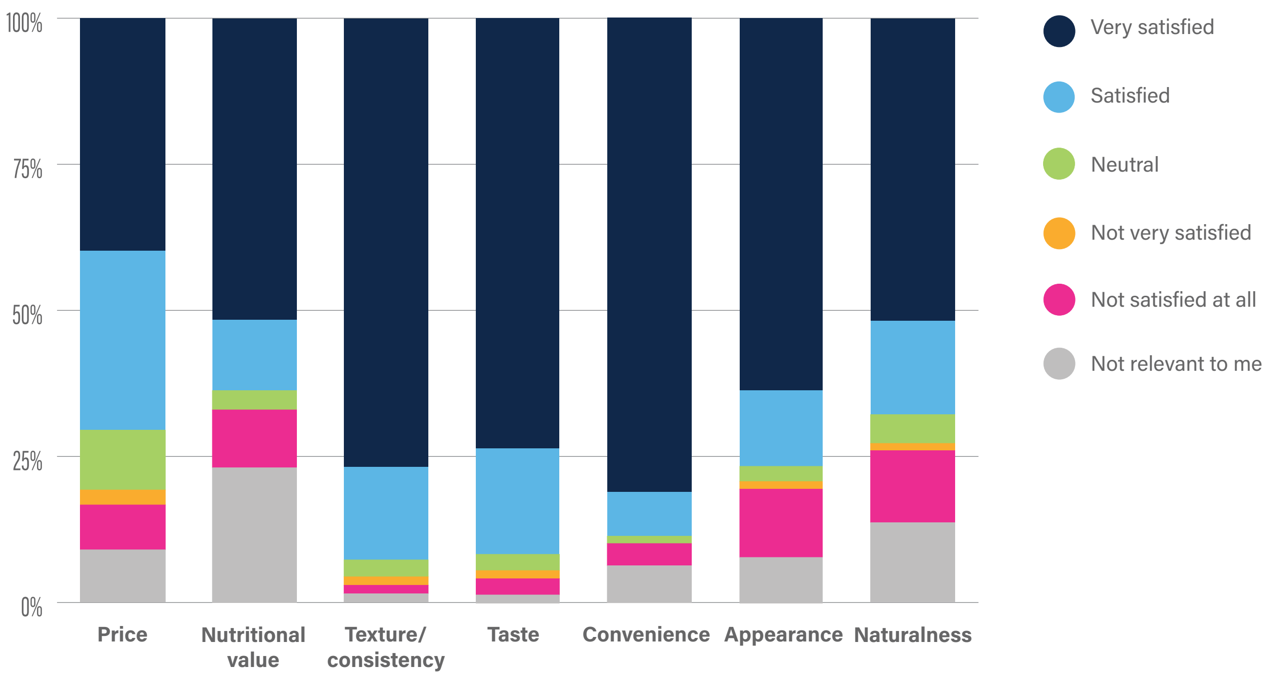


Satisfaction levels for plant-based meat alternatives/plant-based seafood/tofu or tempeh

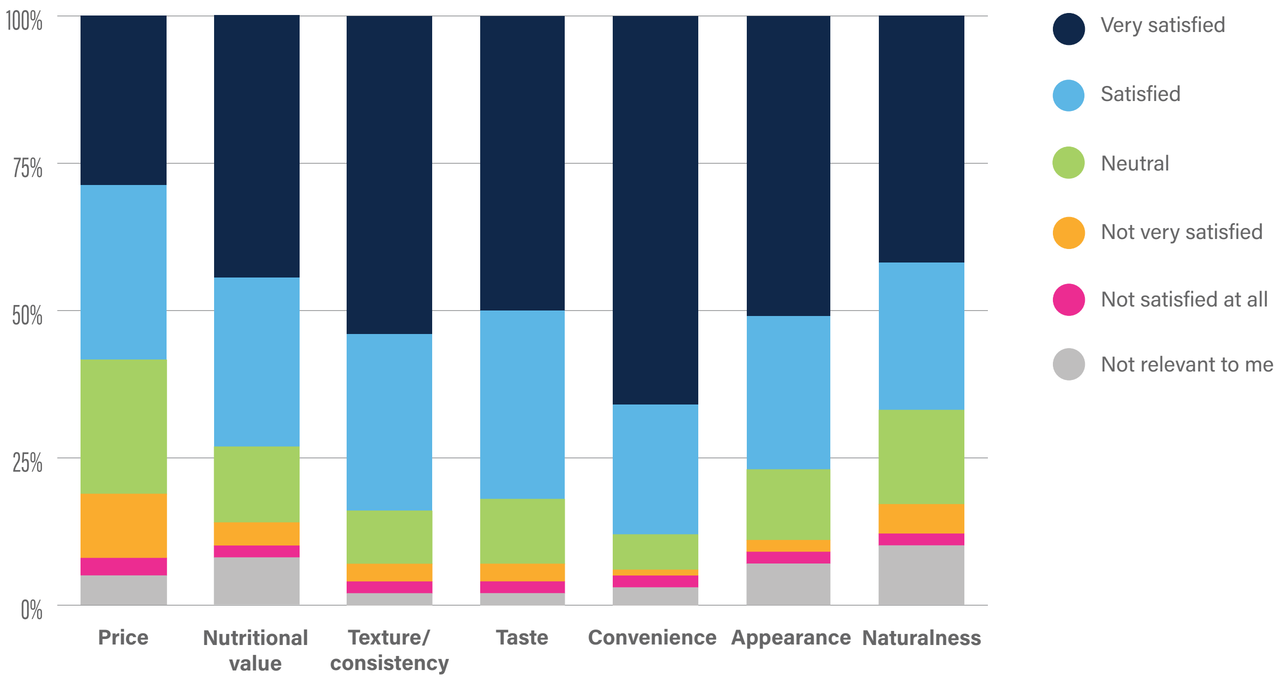
In terms of all three categories (meat alternatives/plant-based seafood/tofu or tempeh), numerous respondents stated that they were either dissatisfied or neutral (or stated "not relevant to me") when it comes to the price of these categories (48%/42%/39% for the three categories, respectively). Other product attributes, such as naturalness and nutritional value, also show room for improvement in all three product categories. In general, the results show that there are no significant differences between the three categories with regard to satisfaction levels.

Picture by Brent Hofacker, Shutterstock

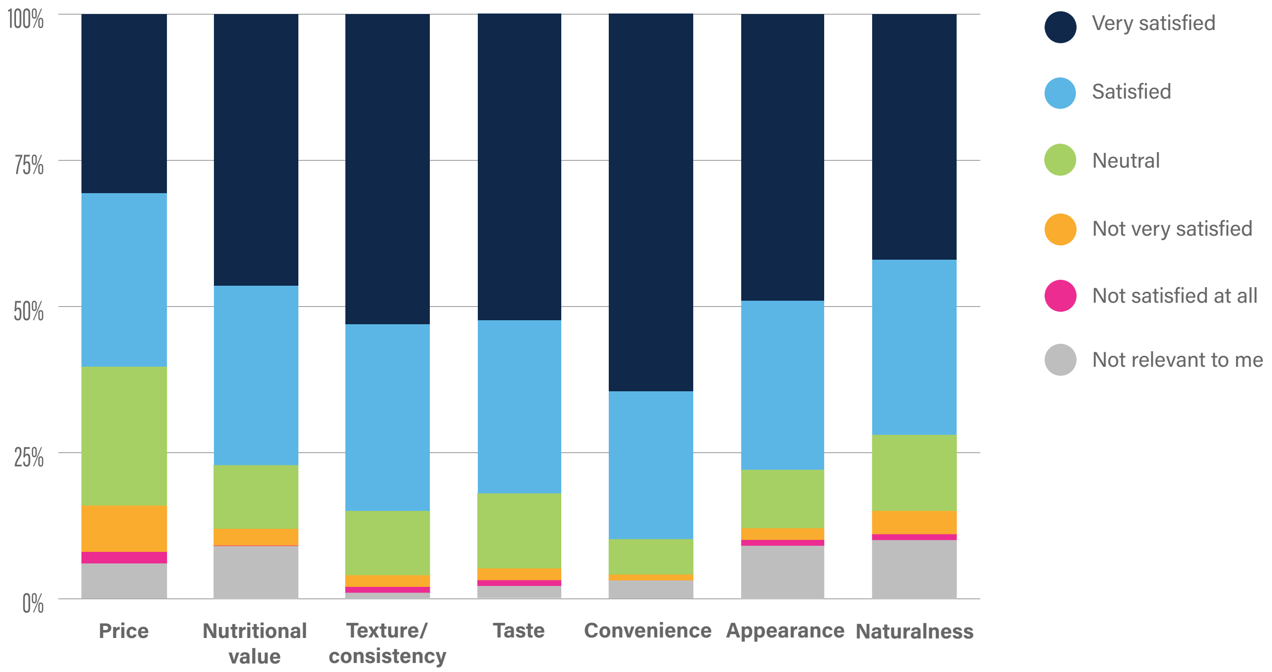
Satisfaction levels for meat-alternative attributes



Satisfaction levels for plant-based seafood attributes



Satisfaction levels for tofu or tempeh attributes



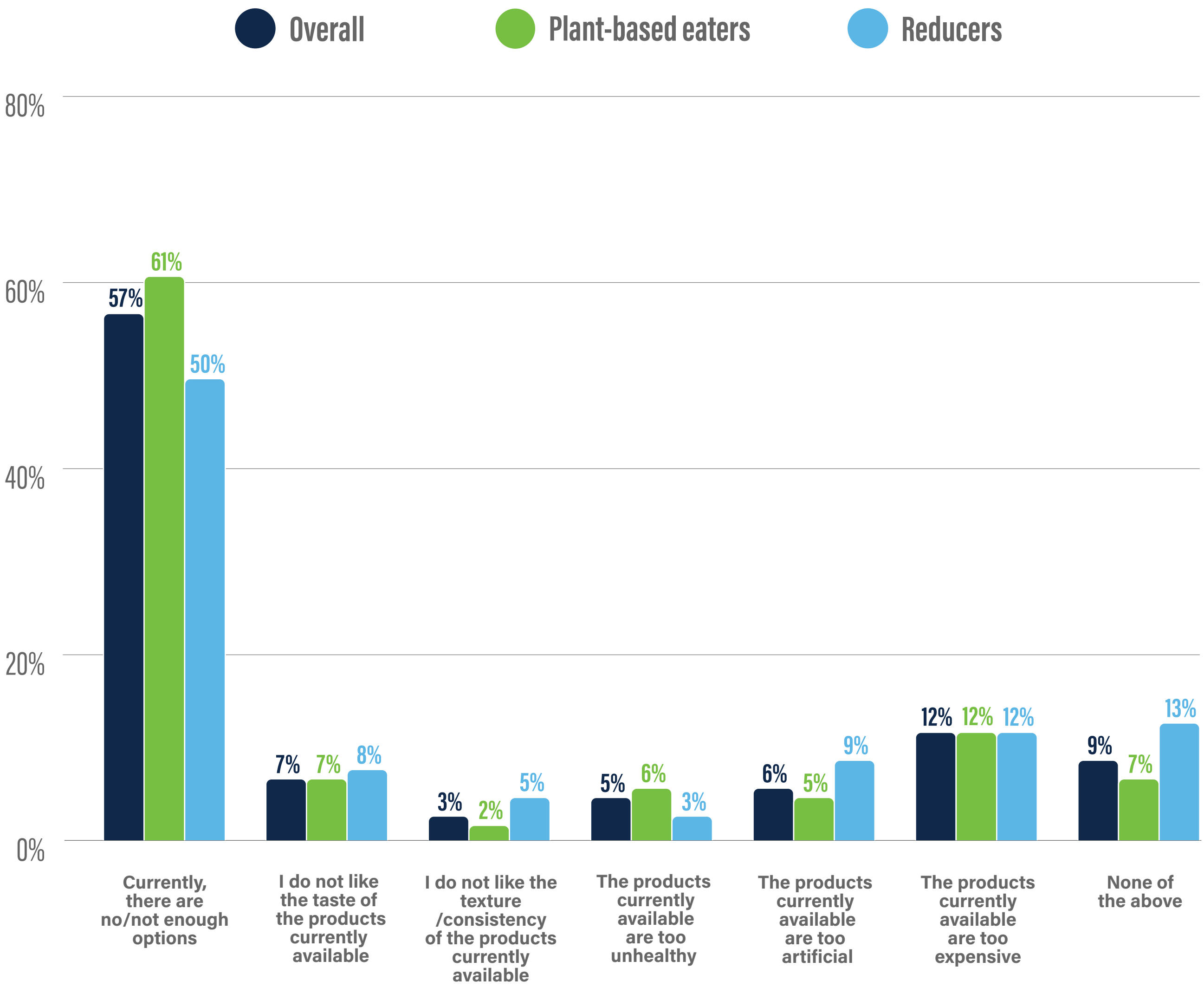
Reasons why consumers would like to see more meat alternatives/plant-based seafood/tofu or tempeh

As presented in the figures below, the survey results show that there is a lack of options in terms of meat alternatives, plant-based seafood, and tofu or tempeh, as indicated by both reducers and plant-based eaters. Respondents think that there are not enough options on supermarket shelves, particularly in the case of plant-based seafood, with 85% of plant-based eaters stating that they would like to see more seafood options.

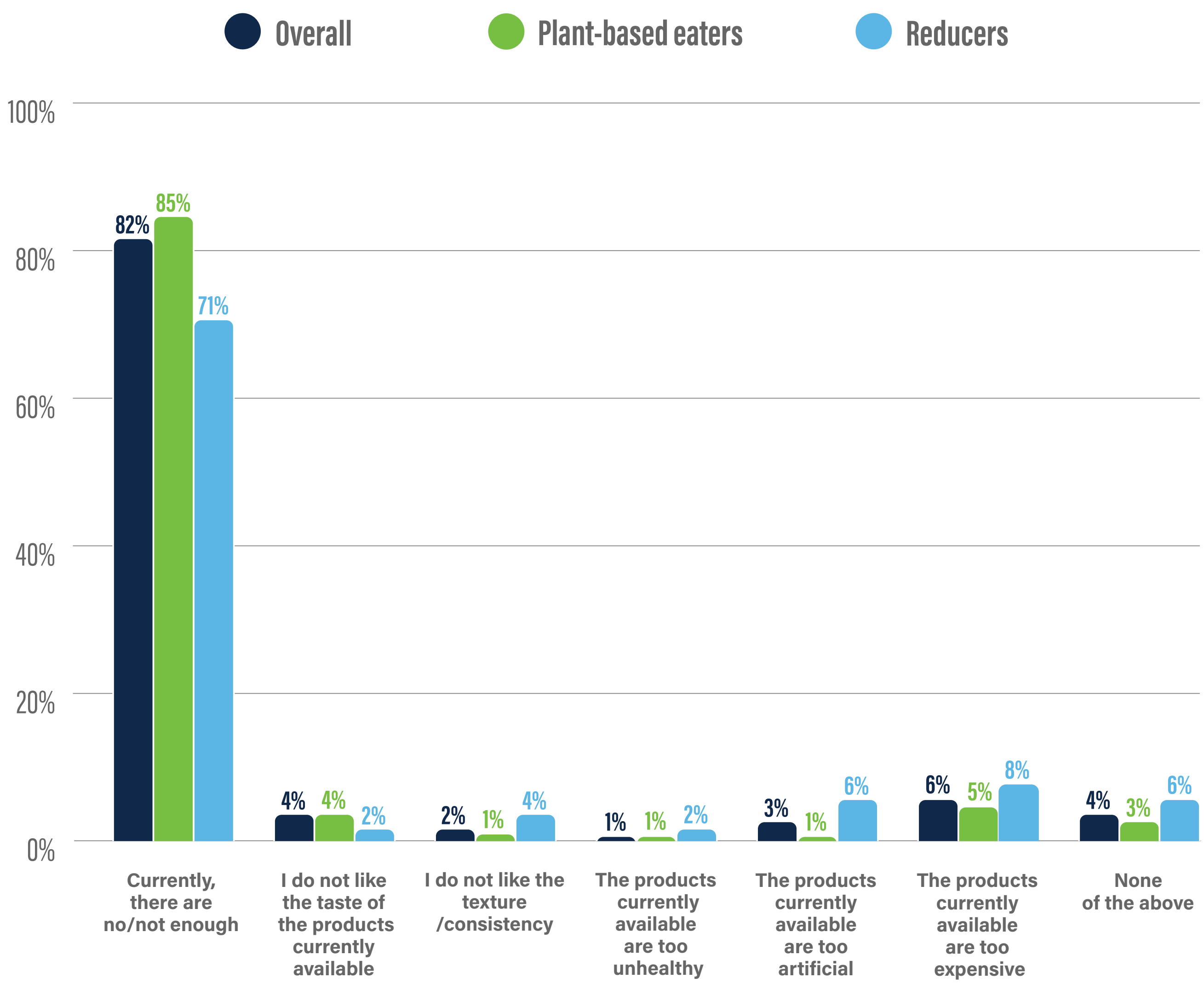

Picture by Ella Olsson, Pexels

In comparison to meat alternatives, the selection of plant-based seafood generally available is very limited and mostly consists of fish fingers or crumbed fish burgers. We advise manufacturers to develop and launch fish fillets and other popular fish products in order to fill the unmet demand in the market. Price is also an important motivator when it comes to meat alternatives, with 12% of respondents stating that meat alternatives are too expensive.

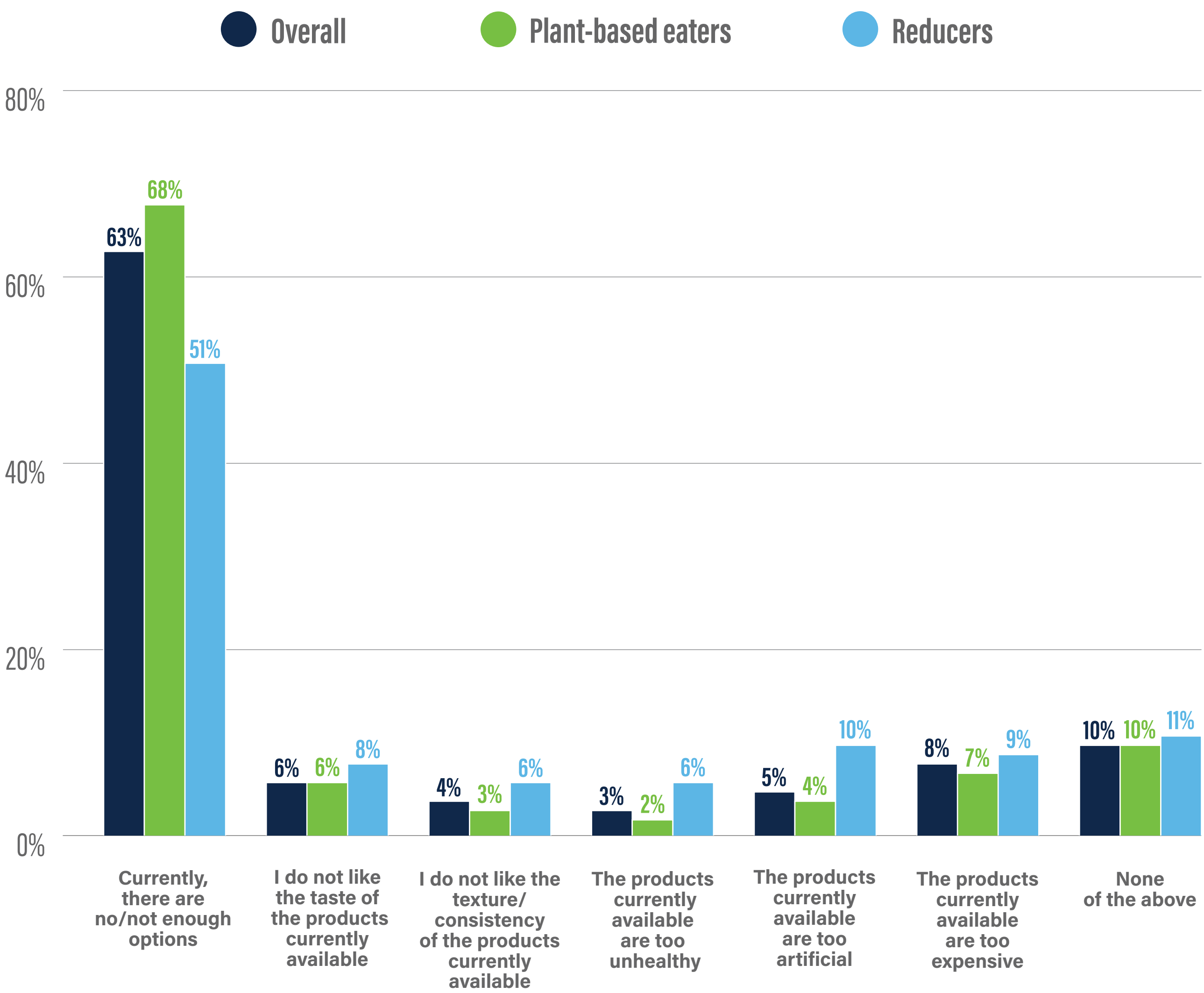
Reasons why consumers want to see more meat alternatives in supermarkets



Reasons why consumers want to see more plant-based seafood in supermarkets



Reasons why consumers want to see more tofu or tempeh in supermarkets



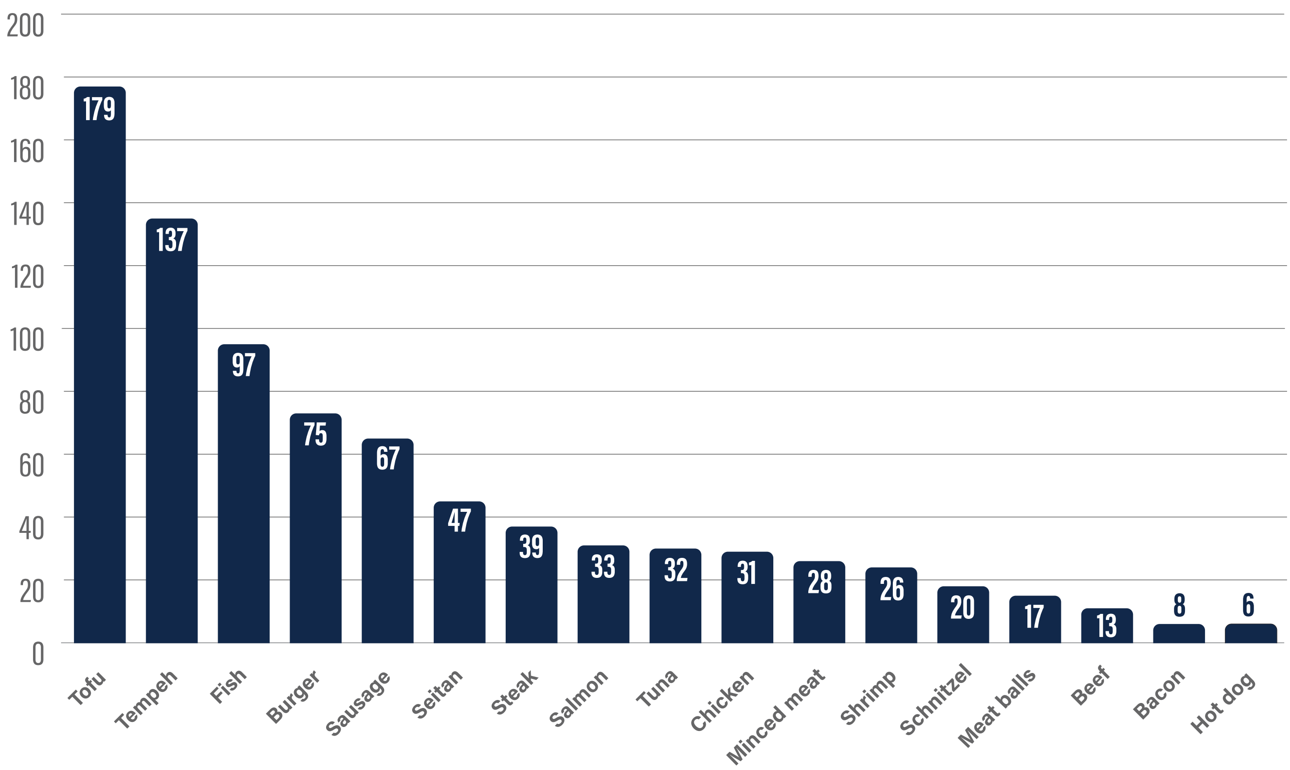
More in-demand products

As well as asking consumers which categories of products they would like to see more of (see the two graphs on page 16), we asked respondents an open-ended question about what kind of specific meat-alternative products they would like to see more of in supermarkets, in order to get a deeper understanding of which products are missing in this category. The results reveal that tofu and tempeh heads the list, followed by fish alternatives, as shown in the graph below. Considering the currently low consumption rate of seafood alternatives (15%, as mentioned previously), this shows a largely untapped market that could be a lucrative focus area for plant-based food manufacturers. Burgers were placed next as the most wanted meat alternative. The graph below indicates all the different types of meat alternatives that consumers would like to see more of.


Picture by Fortyforks, Shutterstock

It is worth noting that tofu, tempeh, and soya-based textured vegetable protein can be considered the first generation of plant-based meats, widely consumed by vegetarians and vegans as wholefood, high-protein meat alternatives. These products can be rather bland if not seasoned well. However, the next generation of plant-based meats – perhaps more accurately called 'meat successors' – will satisfy consumers who want to have a similar sensory experience to the traditional meat products that they are used to consuming. In recent years, there has been a substantial number of product launches for plant-based burgers, sausages, chunks, and deli slices. In terms of new product developments, we advise manufacturers to focus on the development of whole cuts of meat – such as steaks – that have a refined and convincing texture. In doing so, they will be kick-starting a new era in the development of plant-based meats.

Meat alternatives that consumers wanted to see more of



Note: The graph above gives an impression of the general results and illustrates tendencies. It shows the responses to an open-ended question that was not included in all languages. People stated what kind of specific meat-alternative products they would like to see more of in supermarkets. We can provide more information for the respective language/country on request.

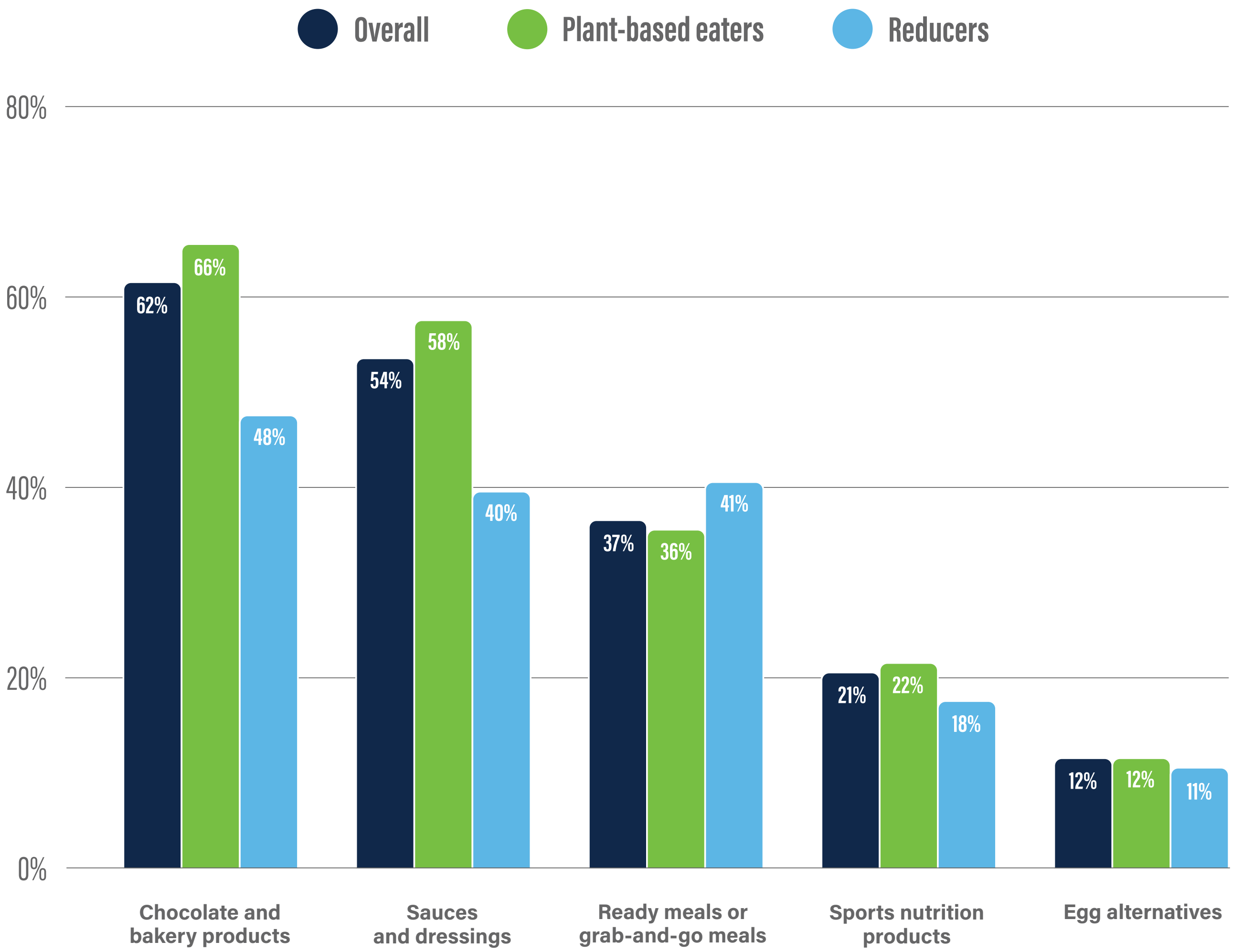
OTHER PRODUCT CATEGORIES

This section provides an overview of the results for the remaining product categories in the survey, including chocolate and baked goods, ready meals and grab-and-go meals, egg alternatives, sauces and dressings, and sport nutrition products.

Consumption status

Plant-based eaters consume plant-based sauces and dressings far more than reducers, as shown in the graph below (58% versus 40%), indicating that reducers are still not very attracted to these products. Similarly, there is a significant gap between the number of reducers (48%) and the number of plant-based-diet followers (66%) who purchased plant-based chocolate and baked goods. For all other product categories (plant-based ready meals, plant-based sports nutrition products, and egg alternatives), the results do not reveal a big difference between the two diet groups in terms of consumption rates, as can be seen from the graph below.

Consumption rates for other product categories

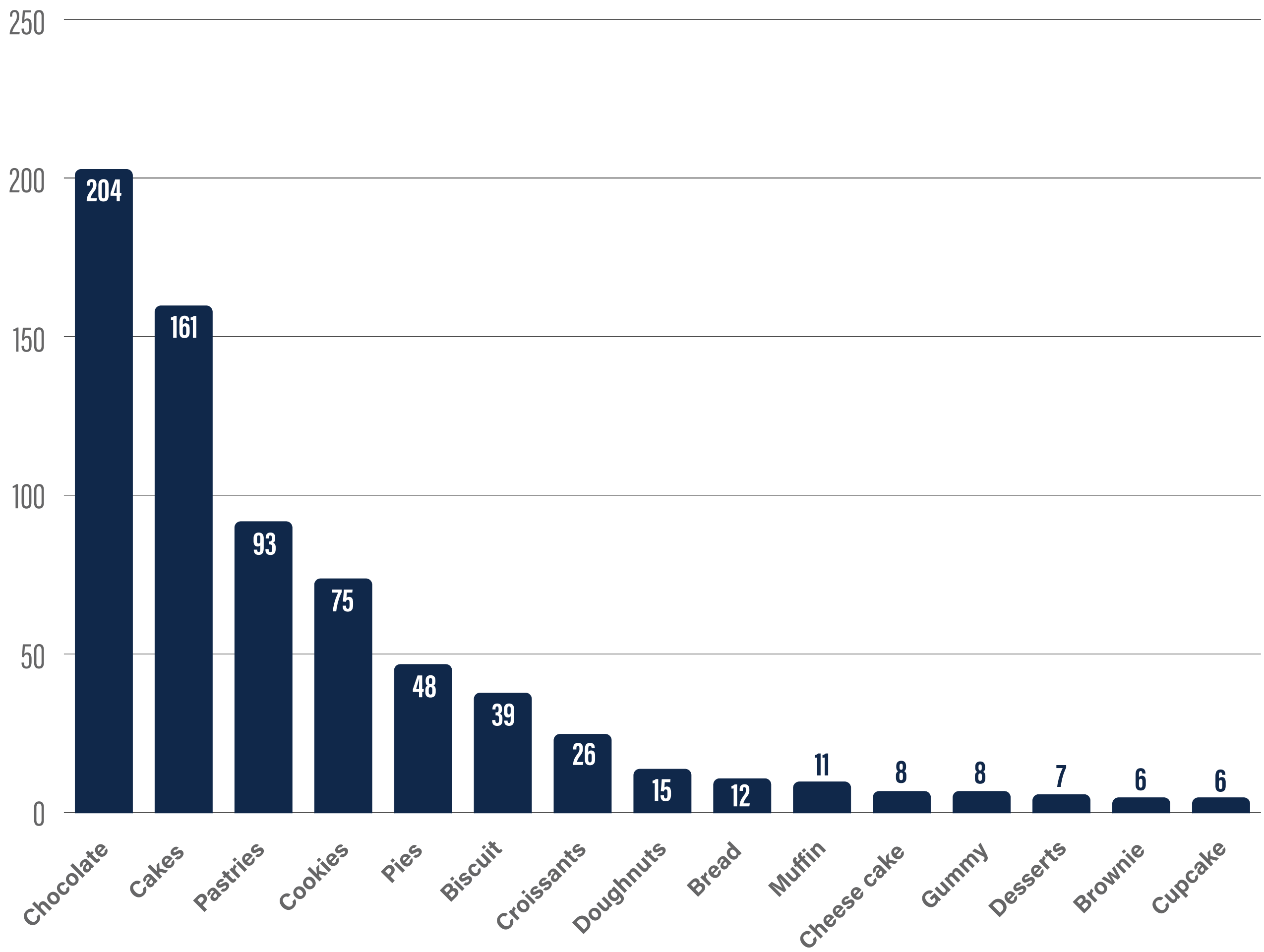


This section gives a more detailed overview of the products that consumers would like to see more of in supermarkets.

Chocolates and baked goods

Only a few of our respondents had recently purchased a plant-based cake or pastry. This is most likely because they are often hard to find in retail locations or simply not available. Unsurprisingly, nutritional value was not a relevant concern when buying these kinds of products. Overall, respondents seem to have had a positive experience with plant-based products in this category, suggesting a strong acceptance of and appetite for additional sweet plant-based cakes and pastries, which is a very underdeveloped sector, particularly considering the ubiquity of baked goods in countries such as Germany. The fact that very few respondents cited taste, texture, or price as an issue with the current product choices suggests either minimal experience or their being of high quality. The following graph indicates which chocolate products and baked goods consumers would like to see more of in supermarkets.

Chocolates and baked goods that consumers wanted to see more of



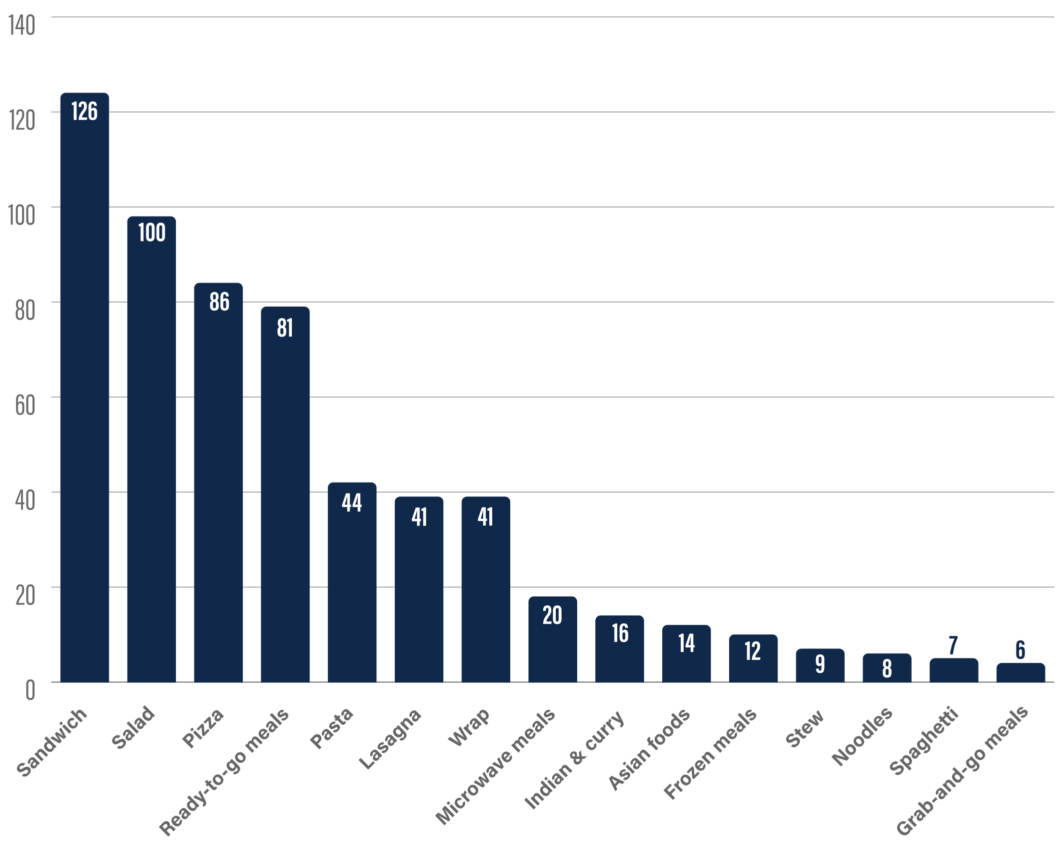
Note: The graph above gives an impression of the general results and illustrates tendencies. It shows the responses to an open-ended question that was not included in all languages. People stated what kind of specific chocolates and baked goods they would like to see more of in supermarkets. We can provide more information for the respective language/country on request.

PRODUCTS THAT CUSTOMERS WOULD LIKE TO SEE MORE OF IN SUPERMARKETS (BAKED GOODS & CHOCOLATE)

Ready meals and grab-and-go meals

In the ready-meals product category, sandwiches, salads, pizza, and ready-to-go meals are the products that most consumers wanted to see more of in supermarkets. The table below suggests the potential additional demand for all ready-meal products.

Ready meals that consumers wanted to see more of



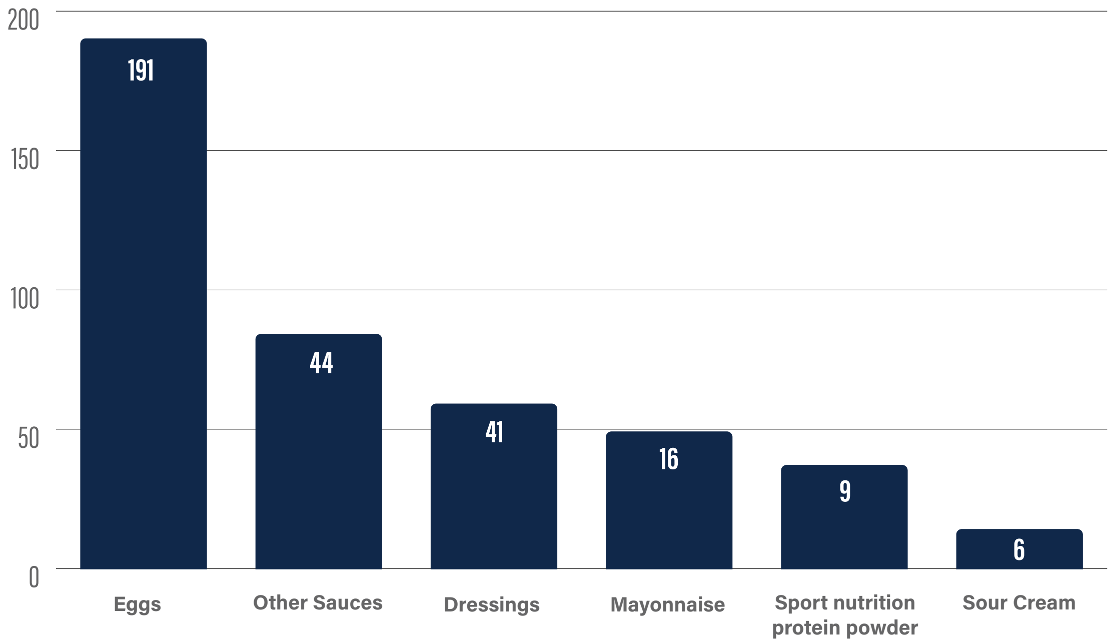
Note: The graph above gives an impression of the general results and illustrates tendencies. It shows the responses to an open-ended question that was not included in all languages. People stated what kind of specific plant-based ready meals they would like to see more of in supermarkets. We can provide more information for the respective language/country on request.

PRODUCTS THAT CUSTOMERS WOULD LIKE TO SEE MORE OF IN SUPERMARKETS (READY MEALS)

Other product categories
(eggs, other sauces, dressings, mayonnaise, sport nutrition, sour cream)

Our survey results also show that 191 of 524 respondents indicated that they wanted to see more egg alternatives on the market. Considering that the 12% consumption rate for egg alternatives was the lowest of all product categories, this reflects a largely untapped market, with much room for product development. The table below shows the other product categories that consumers would like to see more of in supermarkets.

Other products that consumers most wanted to see more of



Note: The graph above gives an impression of the general results and illustrates tendencies. It shows the responses to an open-ended question that was not included in all languages. People stated what other kinds of plant-based products they would like to see more of in supermarkets. We can provide more information for the respective language/country on request.

PRODUCTS THAT CUSTOMERS WOULD LIKE TO SEE MORE OF IN SUPERMARKETS (OTHER PRODUCTS)

CONCLUSIONS

Overall, this survey has revealed enormous potential growth opportunities for developing and launching new plant-based products in multiple food categories. Expansion of plant-based product portfolios not only means a diversification of risk, but also represents a means of future-proofing businesses. Creating delicious and healthy plant-based foods enables consumers to choose products that are good for all humans, animals, and the planet, establishing a win-win situation whose benefits extend far beyond the food supply chain.

Detailed information on the results of all nine countries will be available in individual reports. Further and customised analyses are available on demand.

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