

Plant-based Report 2022



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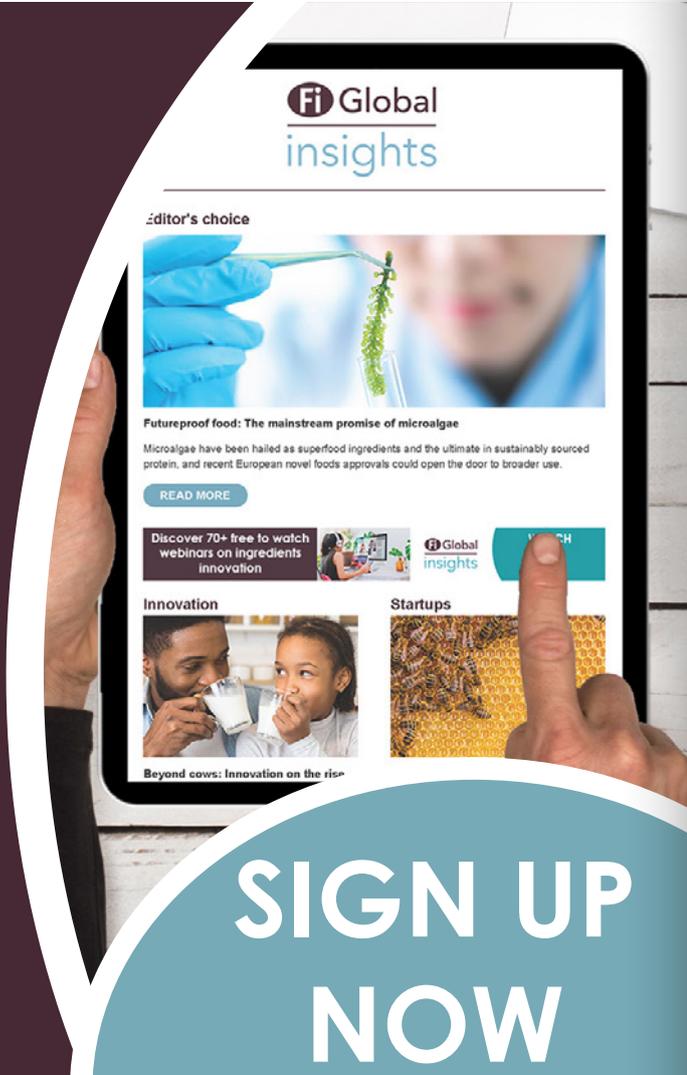
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Plant-based market overview

Consumers around the world increasingly are including plant-based products in their diets, and the number of people who identify as flexitarian has increased, from 26% in 2020 to 31% in 2022, according to data from FMCG Gurus¹. The proportion of vegetarian and vegan consumers also has increased, to 10% and 3% respectively, up from 8% and 2% in 2020². However, it is the growing interest in plant-based foods from those who also eat animal products that has led to a surge in new product development – as well as a new focus on making foods that replicate the flavours and textures of their animal-derived counterparts. Indeed, 89% of those who choose meat and dairy alternatives do not consider themselves vegetarian, according to figures from NPD Group³.

Previously, animal-free alternatives constituted an entirely separate product category intended for vegetarians and vegans⁴. The latest products, on the other hand, are designed to appeal to the 'plant-curious' as well⁵. In their comparison with meat and dairy, taste, texture and cost remain limiting factors⁶, but ingredient suppliers and product developers have made significant progress in recent years. This report looks at the latest ingredients and processing technologies for meatier and more dairy-like alternatives.

Apart from mimicking the taste and texture of traditional meat and dairy, the nutritional profile of plant-based products is also in the spotlight. Protein sources have expanded from soy and wheat to include a range of pulses, seeds, nuts and grains, each with specific nutritional, textural and flavour-related benefits and shortcomings. Product developers have started to recognise this variability, and protein blends have become more popular as a result, as well as a range of innovative ingredients specifically intended to help make up for any limitations in plant-based products.⁷

As interest in plant-based alternatives has grown, so has the market for different formats. Once dominated by soy milk, the plant-based dairy sector now includes a wide variety of cheese and yoghurt alternatives, for example⁸. In the meat alternatives category, products that mimic whole cuts like steak, chicken, fish fillets and even ribs now join the traditional vegan and vegetarian burger patties, mince and sausages⁹.

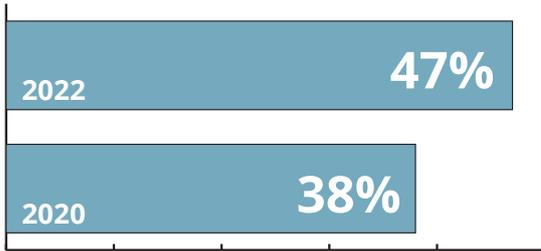
Finally, meat and dairy substitutes are not the only game in town, and many consumers are taking a back-to-basics approach, with protein-rich whole foods like beans, pulses, nuts, seeds and grains taking centre stage in new vegetarian products and diets¹⁰. This report looks at how brands are tapping into these trends in the plant-based sector.



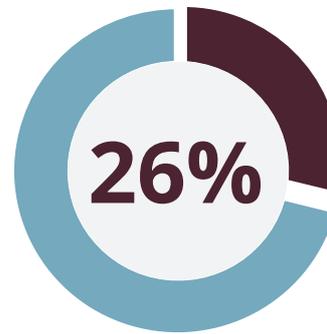
PLANT-BASED CONSUMER TRENDS



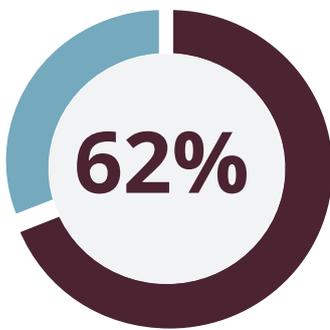
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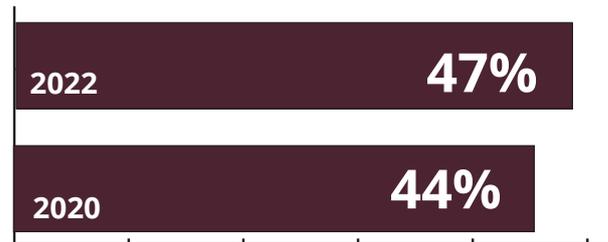
Of global consumers are following a diet around the avoidance or moderation of animal produce, compared to 38% in 2020 (meat & plant)



Of global consumers in 2022 say that they plan to increase their intake of **plant-based food & drink** throughout the year (COVID-19 2022)



Of regular meat-eaters are planning to reduce their meat intake over the next 12 months (meat & plant)

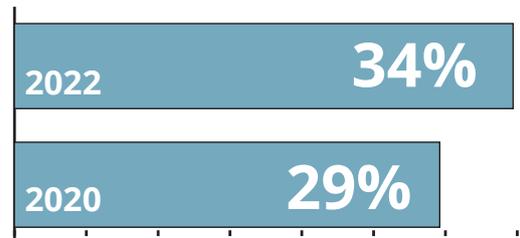


Of global consumers turn to dairy substitutes to some extent, compared to 44% who said this in 2020 (meat & plant)

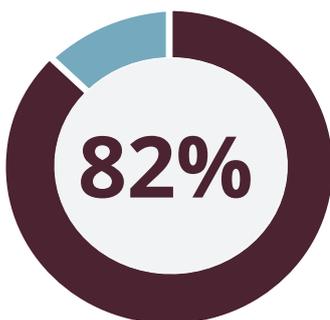


85%

Of global consumers who turn to dairy substitutes say taste is an important factor when choosing products (meat & plant)



Of global consumers say that they turn to meat substitutes to some extent, compared to 29% who said this in 2020 (meat & plant)



Of global consumers who say that they turn to meat substitutes say it tastes the same as meat (meat & plant)



36%

Of global consumers say that they have seen the **V-label** on food & drink products (meat & plant)

Which plant protein?

When it comes to new product development, proteins from soy and wheat are no longer the only options. Soy and wheat are still popular due to their functionality, availability and affordability, but brands have an ever-growing choice, from shiitake-fermented pea protein for vegan burgers¹¹ to fermented coconut milk for yoghurt¹² or a blend of cauliflower and hemp for cheeses¹³.

In plant-based milk alternatives, 67% of consumers said they found almond-derived products appealing, according to FMCG Gurus, followed by soy (65%), oat (61%), rice (53%) and pea (43%)¹⁴.

In Europe, the milk alternatives market is already well-established and continues to grow, having reached a sales value of more than €3bn in 2020, according to Food Trending figures¹⁵. But nutrition claims are coming under scrutiny, particularly when compared with cow's milk, which is naturally high in essential vitamins and minerals. Still, it is one of the fastest growing categories in the food and beverage industry¹⁶. Oat milk has been particularly successful in replicating dairy mouthfeel – and it is associated with lowering cholesterol – while other recent NPD activity has focused on pea, hemp and quinoa¹⁷.

Blending plant sources is another emerging trend. In the United States, Califia has launched a product with oat, sunflower seed and pea to match the protein value of dairy milk¹⁸, and Andros has blended plant sources like rice, coconut and oats with fruit for a twist on the traditional milkshake¹⁹.

The type of protein is important too, according to FMCG Gurus. In a 2022 survey, it found nearly three-quarters of consumers who bought sports nutrition products said "plant protein" was appealing, but no specific plant protein was more appealing than animal-derived proteins, such as whey (which 68% found appealing), collagen (61%), casein (59%), chicken (58%) or milk (58%). Still, the appeal of plant protein has grown significantly, from just 57% in 2019 to 73% in 2021, with consumer interest strongest for proteins derived from rice (58%), potato (58%), wheat (58%) and pea (57%)²⁰.

In meat alternatives, suppliers recognise consumer desire for alternatives to soy and wheat, both because of their potential allergenicity as well as soy's association with genetic modification.

According to Florian Bark, product manager at Hydrosol, "protein sources like peas, potatoes and fava beans are coming to the fore, along with newer sources like chickpeas, sunflower and algae."

The US-based Plant-Based Foods Association has also highlighted the growing diversity of ingredients used to make plant-based meats, which now include more nutrient-dense foods like mung beans, chickpea, fava beans, umami-packed fungi, seaweed, and more²¹.



New ingredients that mimic meat and dairy

Taste

In both meat and dairy alternatives, it is difficult to isolate taste from texture and appearance. Vegan flavourings have been around for a long time – consider chicken-flavoured potato crisps, or cheese-flavoured crackers – but products that aim to mimic actual chicken or cheese bring textural and appearance challenges, as well as flavour-related ones.

Impossible Foods says its burgers include soy-based leghemoglobin – a plant-derived version of the heme molecule present in meat – because the molecule is “what makes meat taste like meat”²². Other companies also are exploring vegetarian heme sources for plant-based meat, such as Chicago-based Back of the Yard Sciences, which makes its ingredient from spirulina, a blue-green algae²³. Heme’s metallic taste may be an important component of meaty flavour, but there is more to it than that²⁴.

Compounds produced via the Maillard reaction are major building blocks in many meat flavours. The reaction occurs between amino acids – the building blocks of protein – and simple sugars, producing a browned appearance and flavour at high temperatures, for example in products like roast chicken or seared steak²⁵. Each type of food has a distinctive set of flavour compounds that are formed during the Maillard reaction, and flavour scientists have used these same compounds to create artificial flavours²⁶. For plant-based meats, one challenge is to work out which flavour compounds will be produced when a particular plant protein – or blend of plant proteins – is heated²⁷.

Researchers also have identified the oxidation of fatty acids and the thermal degradation of thiamine (vitamin B1) as important factors in flavour development²⁸.

Companies often use coconut oil as a fat source in plant meat products, but it does not melt or taste the same as animal fat. Now, suppliers are coming up with other solutions. Lypid is a San Francisco-based startup that uses advanced biomimicry and encapsulation technologies to mimic animal fat using plant-based oils such as rapeseed, sunflower and olive oil²⁹.

Belgium-based Peace of Meat has another potential solution: using cultivated animal fat. The company produces fats from chicken and duck stem cells specifically for use in plant-based meat alternatives by growing them in a bioreactor³⁰.

It remains to be seen whether consumers would be open to animal ingredients in plant-based products – even if they are slaughter-free – but the company’s own research suggests that producers of plant-based meat would be willing to give them a try. Peace of Meat surveyed about 50 companies, 58% of which said they would be likely or very likely to integrate cultured fat into their products. That proportion increased to 66% if the ingredient could improve taste, and reached 68% if it were able to improve texture and mouthfeel³¹.

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Texture

Brands are deploying a growing number of techniques to get a meaty texture with bite or a rich creaminess in plant-based dairy.

Fred Gates is a technical specialist at Reading Scientific Services Limited (RSSL), who says that – alongside flavour – texture is the most important criteria for consumers of vegan food³².

“The first challenge is to identify what the consumer likes and define the key textural attributes of interest,” he said in a recent webinar³³. “For meat analogues, we may want a chewy product but we don’t want it to be too tough, whereas for cheese, hardness and crumbliness may be of interest.”

He suggests developing analytical measures early on in the product development process, and involving the product developer and someone with a clear idea of what the consumer wants, as well as the physical scientist.

“The reason for this is that unless we are able to control the texture, the methods will be of little use in the long run,” he said³⁴. “...It’s worth remembering that texture is not a static property. It evolves as we chew the product.”

Texture analysis involves manipulating the product and applying different forces to represent how it is perceived during chewing or when cut, and Gates suggests analysing texture at different temperatures as well, to simulate how a product warms up in the mouth. Microscopy can also be helpful to understand the structure of different ingredients.

“Formulation and process both have an effect on texture,” he said. “Texture analysis can help the product developer to optimise their product.”³⁵

Processing methods also have evolved to allow for a meatier texture in meat analogues, with the same kind of long fibres as meat, particularly extrusion and shear cell technologies. Others are using 3D printing to replicate whole muscle cuts of meat, like steak or lamb flank. US-based Mooji Meats and Israeli firm Redefine Meat are among those producing plant-based meat via this method.

According to CEO and co-founder of Redefine Meat, Eschar Ben Shitrit, “our first challenge, and potentially our biggest one, was creating meat that had the same complex flavour, texture, aroma and appearance of traditional meat. Luckily, we managed to develop advanced food formulations and technologies (such as 3D printing) that enable us to do so, and even replicate whole cuts such as steaks. As the current plant-based meat market shows us, that’s a lot more difficult than replicating ground beef.”³⁶

Appearance

Technologies like shear cell and 3D printing can help recreate the appearance of meat, as well as its texture and mouthfeel. However, a truly authentic-looking plant-based meat will change colour during the cooking process, just as real meat does. Some plant-based ingredient innovations promise to mimic this.

According to a patent filed by Ocean Spray Cranberries, preparations of upcycled cranberry seeds could not only add nutritional benefits such as protein and fibre to meat alternatives, but also change colour when heated from pink or red to brown, in much the same way as the blood content in traditional meat³⁷.

Israeli company Yemoja made a similar discovery with its red microalgae ingredient, which it says provides a red pigment when raw and browns when cooked. In addition, it congeals in a similar way to meat juices, according to the company³⁸.

For dairy alternatives, too, textural and colour attributes are important contributors to consumer perception.

"Appearance is crucial," said Mike Hughes, head of insight and research at FMCG Gurus³⁹. "You have to remember that flexitarians are everyday consumers. Irrespective of health and sustainability, dairy alternatives have to taste and look nice – and it's an area they feel could be improved."

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Spotlight on category innovations

Meat alternatives

The range of products that mimic meat now reaches far beyond burger patties, nuggets and sausages. Whole cuts like steaks and fillets are now on the menu, as are speciality products, such as vegan ribs and seafood.

Frozen meat alternatives have been a leading category for innovation, driven by demand for convenience, according to ProVeg International, but it advises companies to look at adjacent market opportunities, too⁴⁰, particularly whole cuts. The number of new plant-based products in this space has exploded in just the past few years. Companies include Israeli startups like Mooji Meats and Chunk Foods⁴¹, Japanese company Next Meats recently debuted its plant-based skirt steak and short rib in California⁴², while US-based Meati makes chicken-like cutlets and breaded cutlets from mycelium, with a classic steak version on the horizon⁴³.

In seafood alternatives, companies include Vegan Zeastar, which makes sashimi-style salmon and tuna alternatives, as well as plant-based shrimp and calamari⁴⁴, while Good Catch uses a blend of peas, chickpeas, lentils, soy, fava beans and navy beans to make tuna and salmon alternatives, and has recently introduced whole plant-based fish fillets and crab cakes⁴⁵.

According to the Plant-Based Foods Association, plant-based chicken was “a growth leader in 2021 as more products that match the taste, texture, and appearance of animal-based chicken hit retail shelves”, and it has highlighted the rise of whole cut plant-based meats as “the next big trend in the category”⁴⁶.



In the Netherlands, Albert Heijn launched vegan grilled sausage that it describes as a vegan bread topping made from 59% water, 9% sunflower oil, 8.9% rice protein.

Source: GNDP, Mintel



Garden Gourmet launched plant-based chargrilled pieces in Poland. Made with soy and wheat protein, the product is high in protein and fibre and the recyclable pack features the Vegan V-Label from the European Vegetarian Union.

Source: GNDP, Mintel



In the UK, Jack & Bry launched plant-based burger patties made with jackfruit. The company describes jackfruit as a meaty, fleshy and sustainable whole food that gives plant-based products an edge as well as being high in fibre.

Source: GNDP, Mintel

Cheese & yoghurt alternatives

Before the pandemic, dairy alternatives were already growing rapidly, at a rate of 7.6% a year for yoghurt and cheese alternatives, 8.5% for milk alternatives, and 32.3% for ice cream alternatives, according to Food Trending figures⁴⁷. According to Jamie Rice, director of global data and insights at Food Trending, these products received a sales boost from Covid-19, with their longer shelf life than traditional dairy.

"[It] started as a niche for strict vegans or those with health concerns or lactose intolerance, it wasn't long ago that these products were only available in health food shops," he said⁴⁸.

Cheese and yoghurt alternatives broadly fall into two categories: those that aim to mimic solely the taste and texture of their dairy-based counterparts, often using blends of vegetable fats and starches, and those that use cheese-making and yoghurt-making methods to create products that also have similarities in terms of nutrition and fermented flavour notes⁴⁹. Increasingly, consumers are reaching for the latter, for a more complex and authentic eating experience – and a shorter ingredient list⁵⁰.

And the category is not just about startups. Major dairy companies are diversifying to meet increasing demand for plant-based products. Nestlé, Danone and Fonterra are among the big names that have invested in dairy alternatives in the past few years⁵¹. In dairy-free yoghurt, for example, Danone dominates, but dairy-free cheese remains highly fragmented⁵².



In France, Danone Activia added a plant-based vanilla yoghurt to its range. The vegan product is made with a coconut base and contains one billion active probiotics. It is also free from artificial sweeteners and flavours.

Source: GNDP, Mintel



In Finland, Planti launched a barista-style drinking milk made from broad beans (fava). Planti says it gives coffee a round and full-bodied taste, is perfect for foaming, and can be used as an alternative to milk or as a less sweet and milder variant of oat milk.

Source: GNDP, Mintel



In Germany, Simply V launched plant-based cheese slices made with 1% almonds. The product scores three climate stars, three water stars, three animal welfare stars, and three rainforest stars on the Eaternity Score, and is free from soy, palm oil and gluten.

Source: GNDP, Mintel

Ready meals & savoury dishes

The number and range of vegetarian and vegan meals available in supermarkets has started to expand in recent years, too. In the UK, Europe's biggest market for prepared meals, 16% of ready meals are now plant-based, according to a 2020 survey from Eating Better⁵³. Additionally, it found nearly a quarter of ready meals were suitable for vegetarians, a 33% increase compared to 2018.

Mintel also has highlighted that innovation in plant-based ready meals and savoury dishes is on the rise globally, and sustainability often features prominently on vegetarian and vegan products⁵⁴. However, launch activity is not uniform worldwide, with a steep decline in vegetarian claims on prepared meals in Asia over the past five years, for example, while Australian and New Zealand plant-based claims have soared⁵⁵.

In North America, while vegan and vegetarian claims continue to grow in prepared meal and meal kit NPD, Mintel says "plant-based options are the star performer", referring specifically to products that contain plant-based meat alternatives⁵⁶. The market researcher adds that natural and recognisable ingredients are in particularly high demand – even though on-pack 'natural' claims are not growing.



Made with a soy meat substitute sourced from regionally farmed soy grown around Lake Constance, Tress Brüder's vegan red Thai curry has been relaunched with a new recipe.

Source: GNDP, Mintel



UK retailer Sainsbury's launched 'no beef' spicy BBQ noodles under its Plant Pioneers brand. The vegan dried rice noodles come in a spicy sweet BBQ flavour sauce made with beef flavour, red onion, spring onion, red pepper, basil, and natural flavourings.

Source: GNDP, Mintel



In Greece, AB You'll Love... launched a vegetable lasagne with mushrooms, spinach and bechamel made with soy and coconut milk. The ready-to-eat product is signed by Greek chef Akis Petretzikis and bears the Vegan V-Label from the European Vegetarian Union.

Source: GNDP, Mintel

The 'whole food' approach

Meanwhile, alongside meat alternatives that use protein concentrates and isolates, there is growing demand for natural plant-based products that use whole foods and minimally processed ingredients, such as whole pulses and protein-rich grains. A number of traditional high protein foods is also gaining attention, such as tofu and tempeh from soy, and seitan, made from fermented wheat gluten. These well-established alternatives are growing rapidly, with sales up 40%, 31% and 73% respectively in 2021⁵⁷.

"There is a massive focus on realness and authenticity," said Mike Hughes at FMCG Gurus, adding that natural ingredients are associated with being more trustworthy than highly processed protein ingredients⁵⁸.

According to Peter Rixon, senior international PR manager at ProVeg International, taste and health remain the most important criteria for the purchase of plant-based foods, followed by freshness, no additives and price, citing a 2020 study from the EU-funded Smart Protein project⁵⁹.

"The health and additives aspects clearly address the topic of clean label, which is increasingly of concern to consumers, especially when it comes to plant-based meats, which often have a fairly long ingredient list," Rixon said⁶⁰.

He added: "Familiar main ingredients are the winners – flexitarians favour potatoes and rice as main ingredients in plant-based foods followed by lentils, almonds and chickpeas. Ingredients such as tapioca, lupines, and amaranth were not often selected, which is attributed to the fact that people are not familiar with them."



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Key takeaways

- Flexitarians are increasingly driving new product development in plant-based foods, meaning they are more readily compared with their animal-derived counterparts
- Plant sources for dairy alternatives have diversified, and the functionality of particular proteins has become a more important consideration for manufacturers
- For meat alternatives, the nutritional profile of plant-based proteins is gaining prominence
- All options are on the table for improving flavour in meat and dairy alternatives, from artificial flavours and heme derived from plants or algae, to fat encapsulation – and even cultured animal fat
- Texture is a complex and crucial part of new product development and, ideally, should be considered from the beginning
- A range of new ingredients is helping recreate the appearance and experience of cooking traditional meat, mimicking its colour changes, coagulation and sizzle
- Whole cuts are likely to be the 'next frontier' in meat alternative NPD
- Dairy-free yoghurt is becoming increasingly consolidated, but dairy-free cheese is still dominated by a multitude of small players
- Plant-based options are expanding in ready meals and savoury dishes, particularly alongside sustainability claims
- Consumers favour familiar, minimally processed ingredients in plant-based foods

The information provided here was compiled with due care and up to date to the best of our knowledge on publication.

Sources

- ¹ FMCG Gurus, global Plant-Based Food Attitudes surveys, 2020 and 2022
- ² FMCG Gurus, global Plant-Based Food Attitudes surveys, 2020 and 2022
- ³ <https://www.bigmarker.com/the-food-institute/2022-Outlook-of-Plant-Based-and-Next-Gen-Protein>
- ⁴ <https://plantbasednews.org/news/economics/vegan-meat-market-animal-sector-report/>
- ⁵ <https://insights.figlobal.com/trends/veganism-20-animal-free-food-goes-mainstream>
- ⁶ <https://www.mdpi.com/2071-1050/12/10/4136/pdf>
- ⁷ <https://www.frontiersin.org/articles/10.3389/fnut.2021.809685/full>
- ⁸ <https://vegconomist.com/food-and-beverage/milk-and-dairy-alternatives/global-vegan-yogurt-market-to-more-than-double/>
- ⁹ <https://www.ingredientsnetwork.com/plantbased/the-whole-cuts-the-next-evolution-of-meat-news116634.html>
- ¹⁰ <https://www.eufic.org/en/whats-in-food/article/plant-based-protein-all-you-need-to-know-to-get-enough-of-it>
- ¹¹ <https://www.mycoiq.com/ingredients/fermentiq>
- ¹² <https://katech-solutions.com/vegan/vegan-yogurt/>
- ¹³ <https://groundedfoods.com/>
- ¹⁴ FMCG Gurus, global Plant-Based Food Attitudes survey 2022
- ¹⁵ Jamie Rice, Director of Food Trends and Insight, Food Trending, presentation at Fi Connect 2021, 'From zero to hero, the rise of plant-based dairy and ice-cream'
- ¹⁶ Jamie Rice, Director of Food Trends and Insight, Food Trending, presentation at Fi Connect 2021, 'From zero to hero, the rise of plant-based dairy and ice-cream'
- ¹⁷ Jamie Rice, Director of Food Trends and Insight, Food Trending, presentation at Fi Connect 2021, 'From zero to hero, the rise of plant-based dairy and ice-cream'
- ¹⁸ <https://www.califafarms.com/products/original-protein-oat>
- ¹⁹ <https://androsvegetal.fr/nos-desserts/#douceurs>
- ²⁰ FMCG Gurus, global Plant-Based Food Attitudes surveys, 2019 and 2021
- ²¹ <https://www.plantbasedfoods.org/insights-on-plant-based-meat-sales-in-2021/>
- ²² <https://impossiblefoods.com/heme>
- ²³ <https://www.algaesciences.com/>
- ²⁴ <https://pubmed.ncbi.nlm.nih.gov/32572703/>
- ²⁵ <https://modernistcuisine.com/mc/the-maillard-reaction/>
- ²⁶ https://www.scienceofcooking.com/maillard_reaction.htm
- ²⁷ <https://www.cerealsgrains.org/publications/cfw/2020/Documents/CFW-65-4-0040.pdf>
- ²⁸ <https://www.cerealsgrains.org/publications/cfw/2020/Documents/CFW-65-4-0040.pdf>
- ²⁹ <https://www.lypid.co/>
- ³⁰ <https://peace-of-meat.com/>
- ³¹ <https://www.ingredientsnetwork.com/cultivated-fat-is-a-potential-popular-addition-to-news110412.html>
- ³² The Texture of Vegan Food, RSSL webinar, https://www.youtube.com/watch?v=clhZWP_lwEE
- ³³ The Texture of Vegan Food, RSSL webinar, https://www.youtube.com/watch?v=clhZWP_lwEE
- ³⁴ The Texture of Vegan Food, RSSL webinar, https://www.youtube.com/watch?v=clhZWP_lwEE
- ³⁵ The Texture of Vegan Food, RSSL webinar, https://www.youtube.com/watch?v=clhZWP_lwEE
- ³⁶ <https://www.redefinemeat.com/blog/the-story-of-redefine-meat/>
- ³⁷ <https://www.freepatentsonline.com/y2021/0274808.html>
- ³⁸ <https://www.pnnewswire.com/news-releases/red-microalgae-makes-veggie-burgers-bleed-301438833.html>
- ³⁹ Mike Hughes, Head of Research and Insight, FMCG Gurus, via phone, 20 May 2022
- ⁴⁰ <https://proveg.com/blog/european-plant-based-food-sector-grows-by-49-in-2-years/>
- ⁴¹ <https://insights.figlobal.com/plant-based/fermenting-plant-proteins-create-whole-cut-meat>
- ⁴² <https://www.nextmeats.co.jp/en-US/company>
- ⁴³ <https://meati.com/>
- ⁴⁴ <https://veganfinestfoods.com/>
- ⁴⁵ <https://goodcatchfoods.com/>
- ⁴⁶ <https://www.plantbasedfoods.org/insights-on-plant-based-meat-sales-in-2021/>
- ⁴⁷ Jamie Rice, Director of Food Trends and Insight, Food Trending, presentation at Fi Connect 2021, 'From zero to hero, the rise of plant-based dairy and ice-cream'
- ⁴⁸ Jamie Rice, Director of Food Trends and Insight, Food Trending, presentation at Fi Connect 2021, 'From zero to hero, the rise of plant-based dairy and ice-cream'
- ⁴⁹ <https://sfamjournals.onlinelibrary.wiley.com/doi/full/10.1111/1751-7915.14008>
- ⁵⁰ <https://insights.figlobal.com/plant-based/vegan-cheese-alternatives-are-rise-challenges-remain>
- ⁵¹ <https://www.foodbev.com/news/dairy-vs-plant-the-rising-tide-of-dairy-alternatives/>
- ⁵² <https://vegconomist.com/companies-and-portraits/danone-expands-its-milk-free-range/>
- ⁵³ <https://www.eating-better.org/uploads/Documents/2019/ready-meal-survey-final.pdf>
- ⁵⁴ Mintel, "A year of innovation in prepared meals and meal kits, 2021"
- ⁵⁵ Mintel, "A year of innovation in prepared meals and meal kits, 2021"
- ⁵⁶ Mintel, "A year of innovation in prepared meals and meal kits, 2021"
- ⁵⁷ <https://www.spins.com/resources-plant-based-trends-and-innovations-2021/>
- ⁵⁸ Mike Hughes, Head of Research and Insight, FMCG Gurus, via phone, 20 May 2022
- ⁵⁹ <https://smartproteinproject.eu/consumer-attitudes-plant-based-food-report/>
- ⁶⁰ Peter Rixon, Senior International PR Manager at ProVeg International, via email, 20 May 2022

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