

EXECUTIVE SUMMARY | 2021 STATE OF THE INDUSTRY REPORT

Plant-based meat, seafood, eggs, and dairy

In 2021, steady momentum continued in the plant-based industry after rapid growth from 2019 to 2020. Brands in the U.S. market launched hundreds of new products, global retail sales of plant-based meat surpassed \$5 billion, new technology demonstrated its potential to advance the market, and regulatory wins on food labeling helped ensure a level playing field. Despite food industry disruptions caused by the pandemic, the growth of plant-based proteins signals an increasing global appetite for more sustainable alternatives to conventional animal products.

Products

In 2021, companies advanced applications of plant-based technology to produce new and enhanced products across categories. More than 250 new SKUs were added to shelves in U.S. retail.

Category expansion. Companies are innovating beyond the burgers that led the next-generation plant-based meat category. New products include plant-based bacon, sausages, and deli meats, in addition to an expanding range of chicken and seafood alternatives.

Price parity. Several plant-based meat companies moved closer to **price parity**—though the gap is still significant. For example, **OmniFoods** reduced prices of OmniPork by 22 percent, and **Impossible Foods** once again cut prices at wholesale and retail.

Sales

U.S. retail plant-based food sales metrics, 2021

	Dollar sales	1-yr. dollar growth	3-yr. dollar growth	Dollar share	3-yr. share growth	Unit sales
Total plant-based foods	\$7.4B	6%	54%	4%	79%	1.9B
Plant-based meat	\$1.4B	0%	74%	1.4%	19%* *2-yr. share growth	281M
Plant-based milk	\$2.6B	4%	33%	16%	20%	788M

Total U.S. retail plant-based food dollar sales grew three times faster than total food sales in 2021 to \$7.4 billion.

- **Almost every category grew**, even on top of a strong 2020 that experienced above-average activity owing to impacts of the pandemic.
- **Plant-based meat** sales remained steady in 2021 at \$1.4 billion.
- **Plant-based milk** sales grew 4 percent to \$2.6 billion.
- **Plant-based eggs**, the smallest but fastest-growing category, saw sales grow 42 percent to \$39 million.

Sources: SPINS Natural Enhanced Channel, SPINS Conventional Multi Outlet Channel (powered by IRI) | 52 Weeks Ending 12-26-2021. Panel data from NCP, All Outlets, 52 weeks ending 12-26-21. © 2022 The Good Food Institute, Inc. Note: The data presented in this table is based on custom GFI and PBFA plant-based categories that were created by refining standard SPINS categories. Due to the custom nature of these categories, the presented data will not align with standard SPINS categories.

Investments

Plant-based meat, egg, and dairy companies raised \$1.9 billion in 2021, bringing total investments in such companies to \$6.4 billion.

Category	2021	1980–2021	Highlights
Total invested capital	\$1.93B	\$6.36B	2021 invested capital represents 30% of all-time investment.
Invested capital deal count	140	621	2021's largest investment was \$500 million raised by Impossible Foods.
Unique investors	312 (new)	1,093	The number of new unique investors grew by 40% in 2021.
Liquidity event capital	\$1.93B	\$25B	Oatly's IPO in 2021 raised \$1.43 billion.
Liquidity event count	19	91	
Other financing capital	\$31M	\$158M	The vast majority of other financing events are private investments in public equity (PIPEs).
Other financing count	2	9	

Science and technology

2021 saw several developments in the realm of plant-based ingredients, including commercialization of new biodiverse ingredient sources and improved scalability of plant protein processing techniques. On the plant-based meat manufacturing side, advances were pioneered in alternatives to high-moisture extrusion technology, including **shear-cell technology**—which creates fibrous texture by applying shear force to plant-proteins between two cylindrical rotating plates—and **3D printing**, which can enable the fabrication of highly sophisticated products that mimic whole-muscle meat cuts.

Government and regulation

Government support. Governments including Denmark, Germany, the European Union, Norway, the United Kingdom, and the United States funded plant-based protein research.

Label censorship. In 2021, a federal court ruled that governments could not violate plant-based food companies' First Amendment right to free speech by citing government definition of food-related terms. Additionally, several state legislators introduced label censorship bills that would restrict the use of terms such as "meat," "beef," or "chicken" on plant-based products. Fortunately, no new label censorship laws were enacted.



Opportunities

Successfully capturing the massive opportunity that alternative proteins present will require greater R&D investments from both the private and the public sectors. Global demand for meat is rising—by 2050, **meat consumption is estimated to increase by 70 to 100 percent** over 2005 levels. For governments, NGOs, scientists, companies, and consumers who want to achieve net-zero emissions and keep climate change below 1.5 degrees (or even 2.0), the call to action is clear—elevate investments in plant-based proteins. Plant-based meat production leads to between **30 and 90 percent less emissions** (in CO₂-eq) than conventional meat, demonstrating alternative proteins can be a key tool for climate mitigation.

To maximize the category's potential, plant-based meat must compete with conventional meat products on the table stakes of consumer choice—taste, price, and accessibility. Few consumers today believe that plant-based meat tastes as good as or better than conventional meat. Of consumers who plan to buy plant-based meat less often, 64 percent say it's because they prefer the taste of conventional meat, according to UBS Evidence Lab. Meanwhile, price parity with conventional meat remains a significant opportunity, as plant-based meat, on average, is twice as expensive per pound (according to GFI's analysis of *The Power of Meat 2022*).

Investments in plant-based meat can ensure we realize the potential alternative proteins provide to help sustainably and efficiently feed billions of people, protect public health and lessen the risk of future pandemics, and mitigate the global climate impact of meat production—all while giving consumers more options for tasty, affordable proteins.



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About GFI

The Good Food Institute is a nonprofit think tank working to make the global food system better for the planet, people, and animals. Alongside scientists, businesses, and policymakers, GFI's teams focus on making plant-based and cultivated meat delicious, affordable, and accessible. Powered by philanthropy, GFI is an international network of organizations advancing alternative proteins as an essential solution needed to meet the world's climate, global health, food security, and biodiversity goals. To learn more, please visit www.gfi.org.