



2022 STATE OF THE INDUSTRY REPORT

Plant-based meat, seafood, eggs, and dairy



Executive summary

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In 2022, the plant-based meat and seafood retail industry generated \$6.1 billion in global sales, growing eight percent by dollars and five percent by weight. Combined plant-based milk, cheese, and yogurt hit \$21.6 billion on the global stage, up seven percent from 2021. Amid challenging macroeconomic and market conditions, this rapidly evolving industry made major strides across the areas of science, sustainability, and public and private sector support. As consumer engagement with, and interest in, plant-based proteins increases around the world, retailers and manufacturers are leaning in, introducing new products, developing strategic partnerships, and building new production facilities. Public sector participation is also increasing, with more governments around the world investing in plant-based proteins as a research and commercialization priority.

Plant-based meat, seafood, eggs, and dairy, part of our 2022 State of the Industry Report series, takes a field-wide, global view of the progress made over the past year.

Commercial landscape

New products and categories.

Hundreds of new plant-based alternatives to conventional animal products hit retail shelves in the U.S. market in 2022, including in emerging categories like plant-based steak, salmon, foie gras, fish balls, and schnitzel.

Retail and foodservice trends.

- Large food companies released plant-based versions of popular branded products, including dairy-free **Philadelphia** cream cheese and **Babybel** cheese, and **Kellogg's** plant-based chicken waffle **Eggo** sandwich.
- **Burger King** launched two new Impossible burgers in the U.S. and trialed its first fully plant-based location and default plant-based location in Europe.

New partnerships.




Companies continued to collaborate to develop new products and scale production: we tallied 25 new strategic partnerships in 2022.

Manufacturing capacity.

Six companies opened new or expanded production facilities, and 11 new plant-based contract manufacturers were added to GFI's database, bringing the total number of known plant-based contract manufacturers to 127.

Sales

Table 1: U.S. retail plant-based food sales metrics, 2022

	 Dollar sales	 1-yr. dollar growth	 3-yr. dollar growth	 Dollar share	 Unit sales	 1-yr. unit growth	 Unit share	 Household penetration	 Repeat rate
 Total plant-based foods	\$8.0 B	7%	44%	1.4%*	1.9 B	-3%	1.2%*	60%	80%
 Plant-based meat	\$1.4 B	-1%	43%	1.3%**	255 MM	-8%	1.7%**	18%	63%
 Plant-based milk	\$2.8 B	9%	36%	15.3%	749 MM	-2%	14.7%	41%	76%

Sales data note: The data presented in this graph 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. *Share values for the total plant-based foods category out of total edibles sales (frozen, grocery, refrigerated, and protein powders/bars). Share values of individual plant-based categories are out of their respective total plant-based plus animal-based category. **SPINS does not report non-UPC animal-based meat counter sales. To calculate the plant-based meat share of the total meat category, dollar and unit volume assumptions for non-UPC animal-based meat counter sales are added to SPINS' UPC animal-based meat sales. Household data note: SPINS uses a separate process from the sales data to pull household panel data which may result in minor category differences.

Source: Sales data - SPINS Natural Grocery Channel, SPINS Conventional Multi Outlet Channel (powered by Circana, formerly IRI & NPD) | 52 Weeks Ending 1-1-2023. Household data - NCP, All Outlets, 52 weeks ending 1-1-23

Total U.S. retail plant-based food dollar sales reached \$8 billion in 2022.

- Price increases drove dollar sales up 7% while unit sales declined 3% for total plant-based foods, a trend mirrored across many plant-based categories, total food and beverage, and animal-based food.
- Plant-based meat dollar sales decreased 1% and unit sales declined 8%.
- Plant-based milk dollar sales grew 9% to \$2.8 B while unit sales declined 2%.
- Notable categories that saw both dollar and unit sales growth included plant-based eggs, plant-based seafood, plant-based creamers, and plant-based protein liquids and powders.

Investments

Plant-based meat, seafood, eggs, and dairy companies raised \$1.2 billion in 2022 (representing 15 percent of all-time investment*), bringing total investments to \$7.8 billion. The number of unique investors in plant-based companies grew by 17 percent to more than 1,500 investors.

*investment since 1997

Table 2: Invested capital in plant-based meat, seafood, eggs, and dairy

Category	2022	1997–2022	Highlights
Total invested capital	\$1.19B	\$7.78B	2022 invested capital represented 15% of all-time investment.
Invested capital deal count	145	935	2022’s largest investment was \$135.6 million raised by Redefine Meat.
Unique investors	222 (new)	1,521	The number of unique investors grew by 17% in 2022.
Liquidity event capital	\$119MM	\$26.9B	PlantPlus Foods, a joint venture of ADM and Marfrig, acquired Sol Cuisine for \$102 million in 2022.
Liquidity event count	15	121	
Other financing capital	\$15MM	\$146MM	The vast majority of other financing events are private investments in public equity (PIPEs).
Other financing count	4	20	

Science and technology

Crop diversification and manufacturing.

Companies increased R&D efforts for ultra-high protein chickpeas, fava beans, mung beans, and cowpeas. Diverse plant protein ingredients are gaining traction, with progress being made to increase their production and reduce their costs.

Health and nutrition.

In 2022, a literature review of 43 studies on the healthiness and environmental sustainability of plant-based meat alternatives compared to animal products underscored numerous personal health benefits of plant-based meat.

Environmental and social impact.

Valorizing sidestreams for alternative proteins continued to gain momentum, including protein extraction from leaves destined for waste and upcycling of sunflower, canola, and barley proteins.

Government and regulation

Government support.

Europe led investments in plant-based protein with commitments from Denmark, Sweden, and Switzerland to invest more than \$150 million in R&D. Canada emerged as a global leader in public support for plant-based proteins in R&D, commercialization, and regulatory policy. Singapore's government launched a number of programs to support alternative protein startups and accelerate innovation. In the U.S., support for alternative protein R&D was secured at both the federal and state levels, with Congress allocating nearly \$6 million to USDA and California allocating \$5 million to three universities.

Label censorship.

In 2022, the French legislature passed a decree banning the use of many meat terms on plant-based labels, but the country's highest court temporarily suspended the enactment of the ban. In the U.S., a federal court found an Arkansas food label censorship law to be unconstitutional and permanently blocked enforcement of the law against Tofurky when the company uses terms like "sausage" and "burger" accompanied by words like "vegan" or "plant-based."