

Real Trends in Fake Food



Alongside a cultural revival in “real” food, alternatives to animal products have emerged, gaining the attention of influential media, manufacturers and investors. A wave of startups has pioneered new technologies in producing foods that mimic animal-derived products, including chicken, ground beef, milk and eggs. Unlike traditional alternatives like veggie burgers, these products aim to truly re-create the experience of the original product — appearance, flavor and texture.

Food media has tirelessly covered these alternative animal products in consumer and industry publications alike — [The Economist](#) even went so far as to declare 2019 “the year of the vegan.” Much of the hype for these products stems from promises of safer food with lower environmental impact. However, industry organizations have criticized the imitation products’ naming and labeling claims for misleading consumers. Heading off some of these concerns, U.S. Department of Agriculture ([USDA](#)) and Food and Drug Administration ([FDA](#)) established a joint framework to regulate cell-cultured meat products.



BURGERS: Burgers draw the largest share of influencer attention to meat alternatives. In particular, Impossible Foods and Beyond Meat both claim to have created plant-based burgers that “bleed” and have similar flavor and texture to actual beef.






CHICKEN: Most makers of plant-based protein have developed products to mimic chicken strips or nuggets, though the products rarely see the same fanfare as beef. In contrast, Memphis Meats’ cell-cultured chicken is the lab-grown meat closest to reaching the marketplace.



MILKS: Nondairy “milk” products have been around for decades, but in recent years have gained market share compared with dairy milk ([Quartz](#)). Demonstrating the value of the category, Danone purchased [WhiteWave](#) — the parent company of Silk — for \$12.5 billion in 2016.

MOTIVATIONS

[Ripple Foods](#) proclaims, “For food to be good, we think it needs to taste great, nourish your body and leave a small footprint on the planet.” Other manufacturers of meat and dairy alternatives have similar mission statements, emphasizing the consumer benefits of removing animals from the food production system. Their arguments typically fall under four categories:

 ENVIRONMENTAL	 FOOD SAFETY	 ETHICAL	 HEALTH
Fewer animals will mean less land is required to grow feed crops. Methane emissions from livestock belches and manure will also be reduced.	Cell-cultured meats can be grown in sterile environments free from pathogens.	Fewer animals will be slaughtered.	World Health Organization’s International Agency for Research on Cancer found that red and processed meats are associated with cancer.

Key Players and Products

COMPANY Product(s)	PLANT-BASED	LAB-GROWN	AVAILABLE TODAY	MAIN INGREDIENT	YEAR FOUNDED	INVESTMENT VALUE*	INFLUENTIAL INVESTORS*
MEMPHIS MEATS <i>Chicken</i>		(in development)		Cultured chicken cells	2015	\$20.1M	Bill Gates, Cargill, Inc., Tyson Foods, Inc.
RIPPLE FOODS <i>Ripple</i>	✓		✓	Pea protein	2014	\$109M	Khosla Ventures
IMPOSSIBLE FOODS <i>Impossible Burger</i>	✓		✓	Wheat protein	2011	\$387.5M	Bill Gates, Khosla Ventures
JUST, INC. <i>JUST Mayo</i>	✓	(in development)	✓	Pea protein	2011	\$220M	Khosla Ventures
BEYOND MEAT <i>Beyond Burger</i>	✓		✓	Pea protein	2009	\$122M	Bill Gates, General Mills Inc., HSUS, Tyson Foods, Inc.
COMPANY Product(s)	PLANT-BASED	LAB-GROWN	AVAILABLE TODAY	MAIN INGREDIENT	YEAR FOUNDED	ACQUISITION VALUE**	ACQUIRED BY
QUORN Vegan Burger Chik'n Patties	✓		✓	Mycoprotein (fungus)	1998	\$778M	Monde Nissin
SILK Soymilk Protein Nutmilk	✓		✓	Soy, almonds, etc.	1977	\$12.5B	DanoneWave

*Investors and investment values obtained from [crunchbase](#) records of venture capital funding.

**Acquisition values obtained from [Monde Nissin](#) and [Danone](#), respectively.

Mixed Reviews

Many influential figures and organizations in food production have weighed in on these alternative protein sources, but not all have been approved. Coalitions of farmers and ranchers have pushed back against the category, specifically pushing for the government to regulate how these products can be labeled and named. Additionally, advocates of “clean eating” warn that plant-based “meat” products are highly processed foods.

IN FAVOR	SECTOR	OPPOSED
Goodbye — and good riddance — to livestock farming — George Monbiot , <i>The Guardian</i>	MEDIA	Fake Meat: Impossibly hard to swallow — Joanna Blythman
“First and foremost, we think this makes a delicious burger.” — David Chang (via Eater)	CULINARY	“I hate the idea that people are selling this at a premium at hip restaurants.” — Anthony Bourdain (via Eater)
“Appealing to a more food-forward consumer is a key priority.” — TGI Fridays (via Beyond Meat)	CHANNELS	
“Pea protein comes from yellow split peas, which are ... tied to a number of health perks.” — Cynthia Sass , MPH, RD (via Health.com)	HEALTH & NUTRITION	“Because one of my food rules is ‘never eat anything artificial,’ meat substitutes are not on my food radar.” — Marion Nestle , PhD, Food Politics
This Is Why We Wholeheartedly Support Meat Grown From Cells — Mercy For Animals	SPECIAL INTEREST	“Do You Really Want Elite Billionaire Investors in Control of Your Burgers?”— Joseph Mercola , MD
“The goal is to level the playing field for plant-based foods to compete fairly.”— Plant Based Foods Association	INDUSTRY GROUPS	“Without more stringent guidance as to what constitutes beef, such mislabeling will continue in the marketplace.”— U.S. Cattlemen’s Association (PDF)
“Our traditional proteins, as well as new innovations like cultured meats, are both necessary to meet that demand.” — Cargill	PROCESSORS & MANUFACTURERS	

Key Reading

[Would you eat ‘clean meat’?](#) • Quartz

[Impossible Burger’s ‘Secret Sauce’ Highlights Challenges of Food Tech](#) • *The New York Times*

[Why We Should Make Room for Debate about High-Tech Meat](#) • *Civil Eats*

[Taste Is The Top Reason U.S. Consumers Eat Plant-Based Proteins](#) • Mintel