

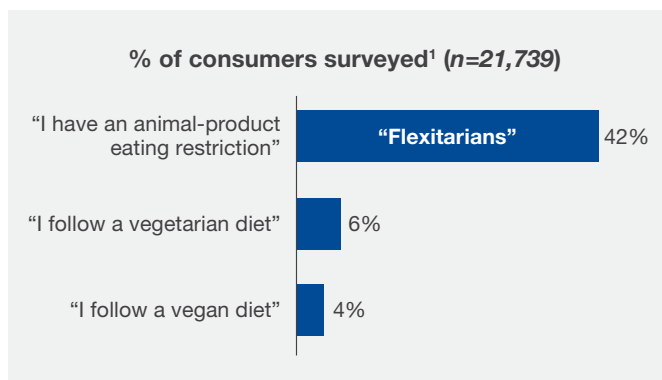
Plant-based ingredients to support today's lifestyle choices

Betatene®

People around the world limit or increase specific foods for different compelling reasons. While halal/kosher/vegetarian diets are practiced in certain regions, dairy-free or gluten-free diets are often required due to intolerances. However, most people would likely fall into the category known as **"flexitarians"** – a combination of the words "flexible" and "vegetarian." What sets flexitarians apart is their freedom of choice - they freely switch between animal and non-animal-based products.

Huge market potential in flexitarians

According to a survey by Euromonitor,¹ 42% of global consumers are flexitarians. They are largely driven by concerns in three areas² which businesses can capitalize on:



Health: They have certain perceptions about what animal-based products can do to their health. In general, eating less animal-based products and including more greens "makes them feel healthier".



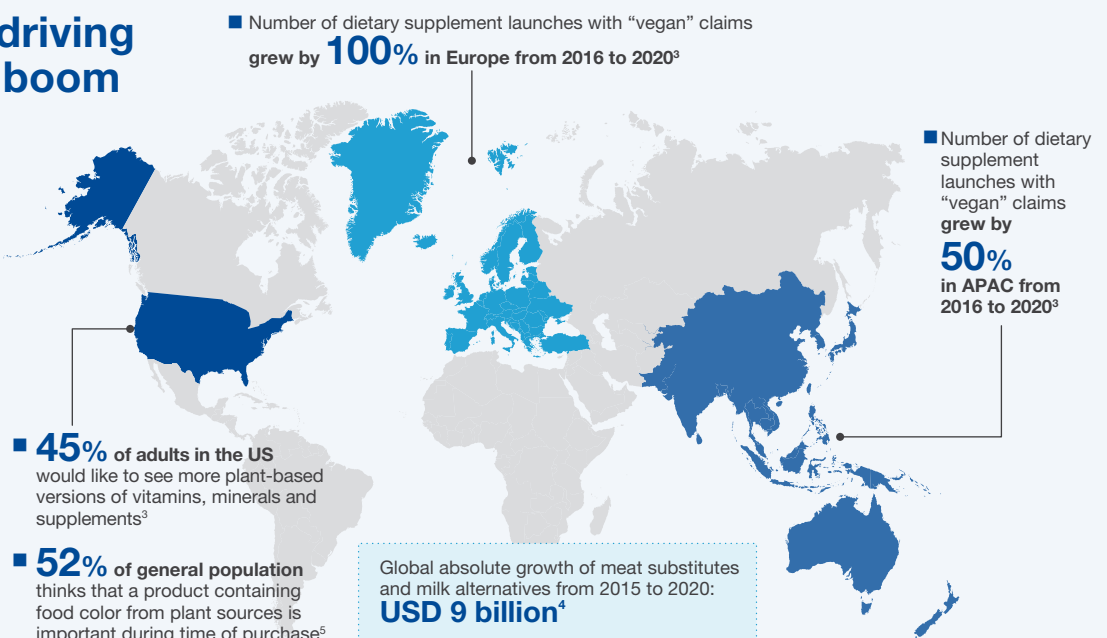
Environment: Saving the environment by looking for sustainable sources of food is a motivation for the flexitarian consumer.



Animal welfare: Intensive farm production technologies that lead to stress and discomfort for animals have caused consumers to move away from meat consumption.

Flexitarians are driving the plant-based boom

Driven by concerns in the three areas, flexitarians are looking to diversify their diets with more "plant-based" options. This perspective could also have an impact on the ingredients used in food, as well as in dietary supplements.



A two-pronged approach is needed to develop a compelling narrative for flexitarians:

1. A clear outline of the company's philosophy on sustainability, ingredients used, processing methods and other product qualities
2. Label claims related to health, environment and animal-free ingredients

BASF's natural beta-carotene is derived from a micro algae, *Dunaliella salina*, that thrives naturally in salt lagoons



- The salt lagoons take on their famous vivid **pink color** from the presence of *Dunaliella salina* swimming freely in the hypersaline water



- The open-air lagoons are located in **Australia**, where BASF operates one of the world's largest production sources of *Dunaliella salina*



- *Dunaliella salina* produces carotenoids to **protect itself** against stress conditions such as UV light and/or harsh habitat conditions



- BASF grows and harvests the *Dunaliella salina* cells from more than 800 ha of lagoons, **carefully managing** their growth conditions and nutrients



- Through photosynthesis, *Dunaliella salina* uses CO₂ as a carbon source while producing beta-carotene, thus contributing to the **sustainability of the environment**

Betatene®, BASF's brand of natural beta-carotene, is positioned to support **vision and immune functions** in dietary supplements



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Our products enable potential claims positioned for your plant-based dietary supplements

Product	Form	Plant-based*	Naturally derived**	Vegan	Vegetarian	Dairy-free/ Lactose-free	Halal	Kosher	Non-GMO	Gluten-free	FSSC 22000	ISO 9001
Betatene® 1% CWD N	Powder	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Betatene® 7.5% N & 10% N	Powder	✓	✓			✓			✓	✓	✓	✓
Betatene® 10% N OU	Powder	✓	✓			✓	✓	✓	✓	✓	✓	✓
Betatene® 20% OLV & 30% OLV	Oil	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Betatene® 20% SOY & 30% SOY	Oil	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓

* Main / active ingredient originating from plants (including vegetables, fruits, whole grains, nuts, seeds, mushrooms and algae). May contain formulation ingredients not from plants

** Main / active ingredient originating from natural materials. May contain formulation ingredients not matching "natural" definition

Position Betatene® for your plant-based innovation

- ✓ Plant-based, natural, renewable
- ✓ Suitable for flexitarians
- ✓ Supports vision and immune functions

Sources: ¹Going Plant-Based: The Rise of Vegan and Vegetarian Food, Euromonitor 2020; ²Choosing Substitutes: The Rising Tide of Non-Animal Proteins, Euromonitor 2021; ³A year of innovation in VMS, Mintel, 2021; ⁴Plant-based Eating and Alternative Proteins, Euromonitor 2021; ⁵Natural Marketing Institute (NMI) Health & Wellness Study (2017)



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BASF Human Nutrition
 basf.com/human-nutrition