

Plant-based ingredients to support today's lifestyle choices

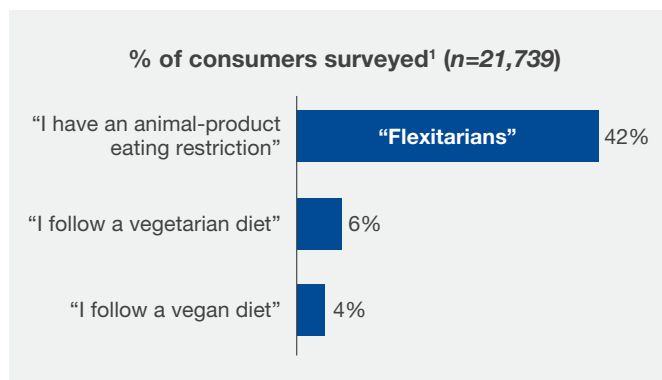
Xangold® Lutein



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”.



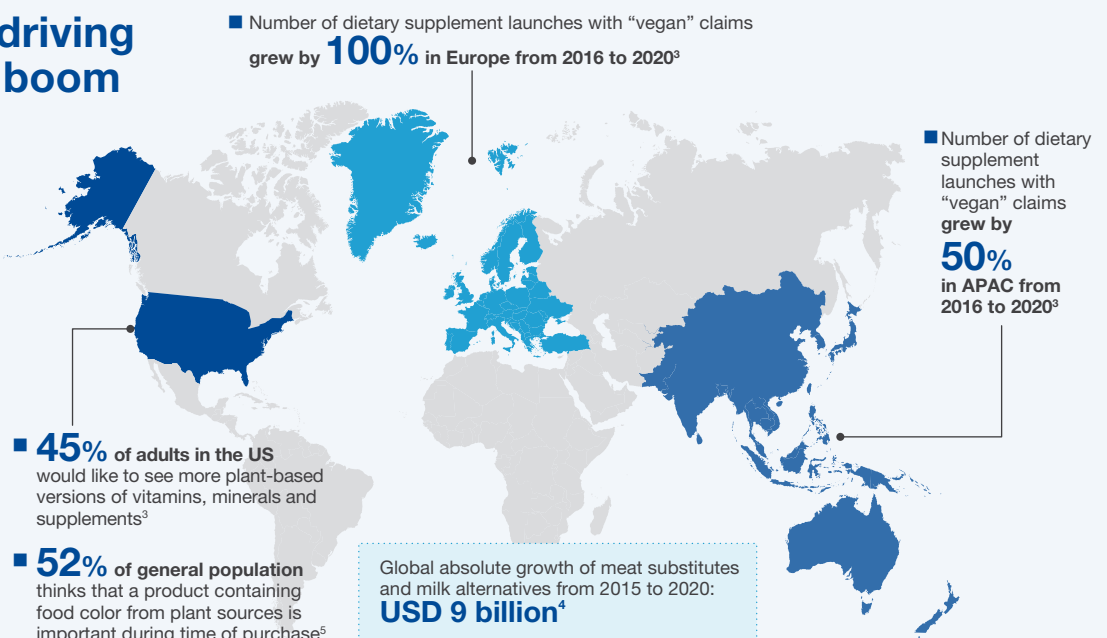
Environment: Saving the environment by looking for sustainable sources of food is a motivation for the flexitarian consumer.



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 Lutein (Xangold®) is extracted from marigold flowers



- BASF's **patented lutein ester extract** from marigolds
- **Naturally occurring ratio** of lutein esters and zeaxanthin esters
- Manufactured by BASF's strategic partner in Ecuador, South America



- Strategic partnership provides BASF with **long-term exclusive rights to supply Xangold® lutein esters for the global dietary supplement and functional food market**



- **BASF's control from crop to finished product** through close partnership with our strategic partner and stringent specifications guarantees high quality products all the time
- **Organic farming process in place for selected field/crop**
- Extraction and purification process: **Natural** characteristics of lutein esters remain unaltered (no saponification)

Lutein is positioned to support healthy vision in dietary supplements and functional food



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

Product	Form	Plant-based*	Naturally derived**	Vegan	Vegetarian	Dairy-free/ Lactose-free	Halal	Kosher	Non-GMO	Gluten-free	FSSC 22000
Xangold® 10% (Beadlet) & 10% (Beadlet)(HR)	Powder	✓	✓			✓			✓	✓	✓
Xangold® 10% CWD	Powder	✓	✓			✓	✓	✓	✓	✓	✓
Xangold® 10% GFB D-ORG HR 	Powder	✓	✓	✓	✓	✓			✓	✓	✓
Xangold® 10% GFB	Powder	✓	✓	✓	✓	✓		✓	✓	✓	✓
Xangold® 20%	Powder	✓	✓			✓			✓	✓	✓
Xangold® 15% & 30% OLV EU	Oil	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Xangold® 15% OLV EU 	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 Xangold® for your plant-based innovation

- ✓ Plant-based, natural, renewable
- ✓ Suitable for flexitarians
- ✓ Support of healthy vision

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)



Discover full range of ingredients & regulatory information with RegXcellence® & MyProductWorld

 BASF Human Nutrition

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