

# Make Innovation HAPPEN



**MIH Knowledge Article:  
Vegan eggs: the taste of eggs to come?**

Scotland  
A LAND OF  
food and drink

SCOTLAND  
IT'S TIME TO INSPIRE



Egg replacers are growing in popularity. So much so, that some traditional egg suppliers are teaming up with food manufacturers, to corner both the vegan and non-vegan egg markets.

In the past decade, the number of vegans has risen by an estimated 360%. Recent market intelligence from Mintel, shows that over half a million of us in the UK follow a vegan diet. This is pressing food and drink businesses to come up with product lines that will satisfy the market.

Vegan food and drink launches have grown by 240% since July 2013 – and account for 5% of all food and drink products launched during that period.

Germany currently stands as the vegan product launch capital, with 15% of all new vegan launches made there, between July 2017 and June 2018. The UK came a close second with 14%, followed by the US with 12% of the market.

## Vegan eggs

One section of the market that's growing in popularity is the vegan egg market. Common vegan egg replacers are made out of chickpea water, legume protein flour and algae flour.

One popular egg replacer is Aquafaba, made with chickpea water. It's an ideal substitute for egg whites and is used to make meringues, fudge and marshmallows. It can also be used in baked goods, as a dairy substitute, in mayonnaise, butter, as a cheese substitute, and in batters and cocktails.

## How aquafaba works

Aquafaba consists of carbohydrates, proteins and other plant solids, which have migrated from the chickpea seeds to the water during the cooking process.

This unique combination of ingredients means aquafaba is great when used in emulsifying, foaming, binding, gelatinising and thickening cooking processes.

## Innovative egg replacers

A few egg replacers on the market come in powder or liquid form. The UK's first vegan egg replacer brand, Follow Your Heart, comes in two varieties. One consists of algae, the other of soy protein. They're sold in powder form and are suitable for scrambling and baking.

Another UK-based company, Orgran, launched an egg replacer made from vegetable starch last year.

## JUST Egg

US company, JUST, launched its liquid egg substitute, JUST Egg, which is made from mung bean protein. The company claims its product tastes like conventional chicken eggs, uses 77% less water than standard egg production, and emits 40% fewer greenhouse gases during production.

JUST is set to launch in Europe soon, in partnership with Italian egg supplier, the Eurovo Group.

## **Meanwhile in Italy**

Students at the University of Udine have developed a plant-based product that has the same appearance and characteristics of a hard-boiled egg. The egg, that comes ready to eat, consists of a combination of vegetable flours, vegetable oils, gelling agents and salt.

The students are currently putting their product in front of companies for investment opportunities and are planning to acquire a patent to protect their unique manufacturing process.

## **Scottish food and drink opportunities**

Targeting vegans, flexitarians, and people with specific dietary needs, offers Scotland plenty of potential to diversify and develop new product ranges. The industry is calling out for Scottish innovators to refresh the market with all sorts of vegan products, including egg alternatives.

We can help companies to innovate around people, processes and new product development. Making sure Scottish businesses have the best chance of getting their great products to market.

# Innovation support for Scottish food and drink companies

Make Innovation Happen is a single source of innovation support for businesses involved in the Scottish food and drink supply chain.

Scotland Food & Drink, Scottish Enterprise and Highlands & Islands Enterprise work in partnership across academia, the public sector and the industry to deliver a comprehensive innovation support service.

Make Innovation Happen can help your business by providing:

- [Access to 'connectors'](#), who can offer support, advice and mentoring, as well as direction to appropriate support
- Ideas and insights on how to innovate through articles and events
- Funding through the [Collaborative Innovation Fund](#)
- Help to access other innovation services provided by Scottish Government, [Scottish Enterprise](#), Highlands & Islands Enterprise, Interface and others

To find out more about the support available, please get in touch with the Make Innovation Happen team:

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