PLANT-BASED SIMULATED EGG COMPOSITIONS

FIELD OF THE INVENTION

The present invention is directed to plant-based vegan simulated egg compositions, methods of producing such compositions and a kit. More particularly, the invention provides, for example, vegan simulated powdered baking egg compositions, hanjuku egg compositions and salted egg sauce compositions, which all provide a functional and sensory substitute for the equivalent products made using natural eggs, methods of manufacture, and kits comprising said compositions.

BACKGROUND OF THE INVENTION

It is well known that some characteristics of egg and egg products are often cause for concern, and otherwise impede the ability for some people to consume food products having egg products therein. For example, many individuals may be unable to, or would prefer not to consume egg products due to egg allergies, health concerns associated with cholesterol, culinary preferences (such as a Vegetarian or vegan diet), use of antibiotics and hormones during poultry production, and diseases associated with poultry (such as, for example, bird flu). Additionally, the high cost and/or cost fluctuations in the price of eggs and the contamination by salmonella carried by eggs have also been a concern of food manufacturers. In addition, the world's ability to provide a growing population with adequate and nutritious food is becoming fragile due to environmental degradation and climate change. Natural egg products form the basis of ingredients in many food types, and replacement of natural egg components with plant-based substitutes is becoming a trend in the food industry. The plant-based egg replacers market is expected to grow exponentially over next years across several markets for both retail and professional uses. Nevertheless, to the inventor’s knowledge, there are many applications of eggs that have no plant-based counterpart as substitute.

There is a need for simulated egg compositions that can be produced locally, and that will mimic, functionally and sensorily, animal-derived eggs, particularly avian eggs, more specifically chicken eggs or their components, for use in food production.

SUMMARY OF THE INVENTION

The present invention is directed to plant-based vegan egg compositions and methods of producing such compositions. More particularly, the invention provides, for example, vegan simulated powdered baking egg compositions, hanjuku egg compositions and salted egg sauce compositions which all provide a functional and sensory substitute for the equivalent natural egg products. For example, in a typical pound cake, the baking egg composition of the

invention provides up to 3% protein compared to 1.3% protein of a real egg. The baking egg composition is also cholesterol free and gluten free, and contains fiber for digestive health. In another embodiment, the invention provides, for example, vegan simulated whole Hanjuku egg compositions as a direct sensory substitute for soft boiled whole Hanjuku eggs, for use in foods such as Ramen and egg sandwiches. A whole vegan Hanjuku egg of the invention has a total protein content of about 5.5 g per egg. This contains a higher protein content than a normal Hanjuku egg, which has about 4.8 g protein. In addition, the Hanjuku egg of the invention contains a significantly lower amount of saturated fats and is cholesterol-free. Moreover, the fibre content of the vegan Hanjuku egg is about twice the amount present in a normal Hanjuku egg. A further embodiment provides vegan simulated salted egg sauce compositions as a functional and sensory substitute for salted egg sauce made from real animal-derived egg yolks. 100g of vegan salted egg sauce of the invention has a protein content of about 7%. The protein content is comparable to that of a normal salted egg sauce. In addition, it is lower in energy, total fat, saturated fat, sugar, sodium and is cholesterol-free.

In a first aspect, the invention provides a plant-based vegan simulated baking egg powder composition comprising the components:

potato starch, sucrose ester, plant protein, plant fiber, baking powder and a gum.

In some embodiments, the plant-based vegan simulated baking egg powder composition comprises:

Potato starch in an amount of about 0.5 to 5 wt%, sucrose ester in an amount of about 30 to about 32 wt%, plant protein in an amount of about 40 to 50 wt%, plant fiber in an amount of about 5 to 8 wt%, baking powder in an amount of about 5 to 12 wt% and gum in an amount of about 0.1 to 1 wt%, by weight of said baking egg powder composition.

In some embodiments, the plant-based vegan simulated baking egg powder composition comprises:

Potato starch in an amount of about 2 wt%, sucrose ester in an amount of about 31.3 wt%, soy protein isolate in an amount of about 48.7 wt%, plant fiber in an amount of about 7.5 wt%, double acting baking powder in an amount of about 10 wt% and gum in an amount of about 0.5 wt%, by weight of said baking egg powder composition.

In some embodiments of the plant-based vegan simulated baking egg powder composition;

i) the plant protein is selected from the group comprising soy protein, fava bean protein, preferably a soy protein isolate, chickpea, pea, rice and mung bean protein; and/or

ii) the gum is selected from the group comprising Xanthan gum, methylcellulose and gellan gum; and/or

iii) the plant fiber is selected from the group comprising pea fiber, oat fiber and psyllium fiber.

In some embodiments of the plant-based vegan simulated baking egg powder composition;

i) the plant protein is selected from the group comprising soy protein and fava bean protein, preferably a soy protein isolate; and/or

ii) the gum is Xanthan gum; and/or

iii) the plant fiber is pea fiber.

In some embodiments, the plant-based vegan simulated baking egg powder composition comprises:

potato starch, sucrose ester, soy protein, pea fiber, baking powder and Xanthan gum.

According to a second aspect, the present invention provides a method of producing a vegan simulated baking egg powder composition of the first aspect, comprising the step:

i) mix potato starch, sucrose ester, plant protein, plant fiber, baking powder and a gum until homogenous,

wherein the composition of (i) is formulated to be used for preparation of baked goods.

In some embodiments, the method further comprises the step:

ii) add 100 ml of water to about 30 g of homogenous baking egg powder composition and mix until the composition is essentially fully hydrated.

According to a third aspect, the present invention provides a baking mixture comprising the composition of the first aspect.

According to a fourth aspect, the present invention provides a plant-based vegan simulated boiled Hanjuku egg composition comprising a simulated egg yolk encased within a simulated egg white, wherein:

the simulated egg yolk comprises:

a) plant protein selected from the group comprising soy protein, chick pea, pea, rice, sunflower and mungbean proteins,

b) corn starch or corn flour, and

c) nutritional yeast, soy sauce, orange food colouring and sugar; and/or

the simulated egg white comprises:

d) tofu, soy sauce, black salt,

e) plant protein selected from the group comprising fava bean, chick pea, pea, rice, sunflower and mung bean proteins, and

f) one or more gelling agents selected from the group comprising konnyaku, carrageenan and agar-agar.

In some embodiments of the plant-based vegan simulated boiled Hanjuku egg composition of the fourth aspect;

in a) the plant protein is soy protein or pea protein,

in e) the plant protein is fava bean protein, and/or

in f) the gelling agents are konnyaku and carrageenan.

In some embodiments, the simulated egg yolk comprises:

a) plant protein, preferably pea protein in an amount of about 5 to about 16 wt%;

b) corn starch or corn flour in an amount of about 0.5 to about 3 wt%, and

c) Nutritional Yeast in an amount of about 0.5 to about 5 wt%, soy sauce in an amount of about 3 to about 6 wt%, orange food colouring in an amount of about 0.5 to about 3 wt% and sugar in an amount of about 5 to about 10 wt%,

by weight of said egg yolk composition; and/or

the simulated egg white comprises:

d) tofu in an amount of about 40 wt% to about 45 wt%, soy sauce in an amount of about 2 wt% to about 5 wt% and black salt in an amount of about 0.4 wt% to about 0.6 wt%;

e) plant protein in an amount of about 2 wt% to about 5 wt%, and

f) one or more gelling agents in an amount of about 0.4 wt% to about 1.0 wt%,

by weight of said egg white composition.

In some embodiments, the simulated egg yolk comprises:

a) pea protein in an amount of about 10.0 wt%;

b) corn starch or corn flour in an amount of about 1.7 wt%, and

c) nutritional yeast in an amount of about 2.74 wt%, orange food colouring in an amount of about 0.5 wt% and sugar in an amount of about 6.8 wt%, soy sauce in an amount of about 4.44 wt%, by weight of said egg yolk composition; and/or

the simulated egg white comprises:

d) tofu in an amount of about 41.98 wt%, soy sauce in an amount of about 3.0 wt% and black salt in an amount of about 0.6 wt%;

e) plant protein in an amount of about 5.0 wt%, and

f) gelling agents in an amount of about 0.6 wt%,

by weight of said egg white composition.

In some embodiments of the plant-based vegan simulated boiled Hanjuku egg composition, in c) the food colouring is selected from Lemon yellow (from fruits and vegetables) and natural yellow (maltodextrin, gardenia yellow and citric acid).

In some embodiments of the plant-based vegan simulated boiled Hanjuku egg composition, the simulated egg yolk comprises plant protein, corn starch or corn flour, nutritional yeast, soy sauce, yellow food colouring and sugar; and

the simulated egg white comprises tofu, carrageenan, soy sauce, black salt, fava bean protein and konnyaku.

According to a fifth aspect, the present invention provides a method for producing a vegan simulated boiled Hanjuku egg composition of the fourth aspect, comprising the steps:

i) for a first mixture combine, until well-mixed, water, tofu and soy sauce;

ii) gradually add plant protein, black salt and gelling agents into the mixture from i) and mix until homogenous;

iii) heat the mixture to about 80 °C to activate the gelling agents;

iv) for a second mixture combine, until well-mixed, water, soy sauce and colouring agent;

v) gradually add plant protein selected from the group comprising soy protein, chick pea, pea, rice, sunflower and mung bean proteins, flavouring, corn starch or corn flour, into the mixture from iv) and mix until homogenous;

vi) add about 10 g of the mixture from v) into a yolk mold;

vii) freeze yolk until solid;

viii) fill an egg mold about half full with heated egg white mixture iii) and gently place a single frozen egg yolk from vii) into the mold.

ix) fill the rest of the egg mold with heated egg white mixture iii), cap the mold and place in refrigerator overnight to form a simulated boiled Hanjuku egg.

In some embodiments the method comprises the steps:

i) for a first mixture combine, until well-mixed, water, tofu and soy sauce;

ii) gradually add fava bean protein, black salt, carrageenan and konnyaku into the mixture from i) and mix until homogenous;

iii) heat the mixture to about 80 °C to activate the konnyaku;

iv) for a second mixture combine, until well-mixed, water, soy sauce and colouring agent;

v) gradually add pea protein, nutritional yeast, sugar and corn starch into the mixture from iv) and mix until homogenous;

vi) add about 10 g of the mixture from v) into a yolk mold;

vii) freeze yolk until solid;

viii) fill an egg mold about half full with heated egg white mixture iii) and gently place a single frozen egg yolk from vii) into the mold.

ix) fill the rest of the egg mold with heated egg white mixture iii), cap the mold and place in refrigerator overnight to form a simulated boiled Hanjuku egg.

According to a fifth aspect, the present invention provides a plant-based vegan simulated boiled Hanjuku egg composition produced by the method of the fourth aspect.

According to a sixth aspect, the present invention provides a kit comprising a plant-based vegan simulated boiled Hanjuku composition of the fourth aspect.

According to a seventh aspect, the present invention provides a plant-based vegan simulated salted egg yolk sauce composition, comprising;

soy sauce, chickpea, water, oil, yeast extract, natural food flavoring, natural orange food coloring, basil leaves, chilli powder, gum and salt.

In some embodiments of the plant-based vegan simulated salted egg yolk sauce composition;

in b) the oil is selected from the group comprising sunflower, canola, soybean and corn; and/or

in c) the natural food flavoring is pentane-2,3-dione; and/or

in d) the natural orange food coloring comprises:

i) sorbitol syrup, corn oil, demineralised water, MCT Oil, beta-apo-8`-carotenal, sucrose esters of fatty acids, sunflower lecithin, alpha-tocopherol, ascorbyl palmitate, or

ii) glycerol, water, acacia gum, sunflower oil, medium-chain triglycerides (MCT) oil, beta-carotene, citric acid, ascorbic acid and tocopherol.

In some embodiments, the plant-based vegan simulated salted egg yolk sauce composition comprises;

soy sauce in an amount of about 5 wt% to about 10 wt%, chickpea in an amount of about 35 wt% to about 40 wt%, oil in an amount of about 15 wt% to about 20 wt%, yeast extract in an amount of about 0.5 wt% to about 1 wt%, natural food flavoring in an amount of about 0.5 wt% to about 2 wt%, natural orange coloring in an amount of about 0.005 wt% to about 0.1 wt%, salt in an amount of about 0.1 wt% to about 0.5 wt% and water in an amount of about 25 wt% to about 30 wt%, basil leaves in an amount of about 0.05 wt% to 0.3 wt%, guar gum in an amount of 0.1 wt% to about 0.5 wt%, chilli powder in an amount of about 0.1 wt% to about 0.5 wt%, by weight of said salted egg yolk sauce composition.

In some embodiments, the plant-based vegan simulated salted egg yolk sauce composition comprises;

soy sauce in an amount of about 8.11 wt%, chickpea in an amount of about 39.51 wt%, canola oil in an amount of about 19.53 wt%, yeast extract in an amount of about 0.82 wt%, natural food flavouring (such as pentane-2,3-dione) in an amount of about 1.5 wt%, natural orange coloring (such as Fusion Nectarine Orange 2L-WS) in an amount of about 0.06 wt%, salt in an amount of about 0.3 wt% and water in an amount of about 29.36 wt%, basil leaves in an amount of about 0.16 wt%, guar gum in an amount of about 0.32 wt%, chilli powder in an amount of about 0.33 wt%, by weight of said salted egg yolk sauce composition.

In some embodiments of the plant-based vegan simulated salted egg yolk sauce composition, the natural food flavoring and/or yeast extract are substituted by vegan dairy-free cheese in an amount of about 3.0 wt% to about 5.0 wt%, by weight of said salted egg yolk sauce composition.

In some embodiments, the plant-based vegan simulated salted egg yolk sauce composition further comprises roasted curry leaves and finely chopped chilies.

According to an eighth aspect, the present invention provides a method of producing a vegan simulated salted egg yolk sauce composition of the seventh aspect, comprising the steps:

i) in a blender, mix, chickpea, water, oil, yeast extract, natural food flavoring, natural orange food coloring, soy sauce, basil leaves, chilli powder, guar gum and salt for about 30 sec, or until smooth and homogenous; and

ii) remove fine particles with a sieve.

In some embodiments, the method further comprises the addition of roasted curry leaves and finely chopped chilies.

According to a ninth aspect, the present invention provides a kit comprising a plant-based vegan simulated salted egg yolk sauce composition of the seventh aspect.

BRIEF DESCRIPTION OF THE FIGURES

Figure 1 shows the appearance of the vegan powdered baking egg of the invention.

Figure 2 shows a section through a vegan pound cake made using the vegan powdered baking egg.

Figure 3 shows cookies made using the vegan powdered baking egg.

Figure 4 shows the appearance of the vegan simulated Hanjuku egg of the invention in a Ramen dish.

Figure 5 shows the appearance of the vegan simulated Hanjuku egg of the invention as an egg substitute in an egg sandwich.

Figure 6 shows the appearance of the vegan salted egg sauce of the invention.

Figure 7 shows the vegan salted egg sauce of the invention with plant-based chicken bites.

DETAILED DESCRIPTION OF THE INVENTION

Definitions

Certain terms employed in the specification, examples and appended claims are collected here for convenience.

It must be noted that as used herein and in the appended claims, the singular forms "a", "an", and "the" include plural reference unless the context clearly dictates otherwise.

As used herein, the term "comprising" or "including" is to be interpreted as specifying the presence of the stated features, integers, steps or components as referred to, but does not preclude the presence or addition of one or more features, integers, steps or components, or groups thereof. However, in context with the present disclosure, the term "comprising" or "including" also includes "consisting of". The variations of the word "comprising", such as

"comprise" and "comprises", and "including", such as "include" and "includes", have correspondingly varied meanings.

As used herein, the term “about” is intended to encompass a variance of 10% from a recited numerical value. For example, ‘about 20 wt%’ in relation to a component of a vegan plant-based simulated egg composition of the invention encompasses a numerical value of 18 wt% to 22 wt%.

Having now generally described the invention, the same will be more readily understood through reference to the following examples which are provided by way of illustration, and are not intended to be limiting of the present invention.

EXAMPLES

EXAMPLE 1

1.1 Plant-based powdered baking egg composition components

Potato starch is a thickening agent in the vegan baking egg formulation. Potato starch helps to bind ingredients together in the batter or mixture and increases the viscosity. In some cases, potato starch may be substituted in the formulation with starches of other origins, which can include tapioca, arrowroot and corn. The optimal amount of potato starch in the baking egg formulation ranges from about 0.5 wt% to 5 wt%, preferably from 0.5 – 5 wt%, by weight of said baking egg powder composition.

Sucrose ester is an emulsifier used to help in the combination of water and lipids. Its ability to prevent phase separation also allows for a smooth and cohesive mixture when water is added to reconstitute the baking egg. Sucrose esters are produced by inter-esterification or transesterification of sucrose with the vinyl esters of fatty acids. An example of a sucrose ester is marketed as Habo MX (T090D0091) by Compass Foods. The optimal amount of sucrose ester in the baking egg formulation ranges from about 30 wt% to about 32 wt%, preferably from 30-32 wt%, by weight of said baking egg powder composition.

Gum. Xanthan gum, methylcellulose and gellan gum may be used. Xanthan gum is an exopolysaccharide secreted by the microorganism *Xanthomonas campestris*. Advantageously, this hydrocolloid exhibits excellent stabilizing effect to provide a structure for air bubbles, so as to achieve a porous crumb structure similar to that provided by a whole egg. The optimal amount of gum in the baking egg formulation ranges from about 0.1 wt% to about 1 wt%, preferably from 0.1 – 1 wt%, by weight of said baking egg powder composition.

Baking powder is a dry chemical leavening agent used to produce bubbles in baked products. The baking powder reacts to form bubbles in the presence of water, when the baking egg is reconstituted with water. This is used to obtain a light, porous and airy texture of baked goods that would otherwise be very dense. Both single-acting and double-acting baking

powder were tested. Trials conducted showed that double-acting baking powder was more consistent in providing aeration and texture in final vegan baking applications. The optimal amount of double-acting and single-acting baking powder in the baking egg formulation ranges from about 5 wt% to about 12 wt%, preferably from 5 – 12 wt%, by weight of said baking egg powder composition.

Plant fiber is a type of dietary fiber and complex carbohydrate used for texture enhancement in baked goods. Preferably the type of plant fiber used is soluble pea fiber. Alternatively, other types of soluble fibers may be used such as oat and psyllium. To produce pea fiber, yellow peas are subjected to wet separation in which internal fibers are extracted. The optimal amount of pea fiber in the baking egg formulation ranges from about 5 wt% to about 8 wt%, preferably from 5-8 wt%, by weight of said baking egg powder composition.

Plant protein is used for providing structure in baked goods. Preferably the type of plant protein used in the vegan baking egg formulation is faba bean protein. More preferably a soy protein isolate is used which comprises 90% protein on a dry basis. To produce an isolate, wet soya meal is subjected to flash desolvation and cooling process. Flash desolventizing refers to the instantaneous desolventing of wet soy meal at high temperature, removing most of the solvents, and then directly stripping the white oil cake in a vacuum. After desolventing, the material is cooled and discharged to a lower temperature region, so that the denaturation of protein occurs the lowest. Alternatives include chickpea, pea and mung bean protein, but the soy protein is preferred because it confers best sensory textural attributes and possesses great solubility which facilitates reconstitution with water. The recommended dosage of plant protein in the baking egg formulation ranges from about 40 wt% to about 50 wt%, preferably from 40 – 50 wt%, by weight of said baking egg powder composition. Meanwhile, the recommended dosage of soy protein isolate with a protein concentration of 90%, ranges from about 40 wt% to about 50 wt%, preferably from 40 - 50 wt%, by weight of said baking egg powder composition.

The vegan powdered baking egg composition of the invention is formulated as shown in Table 1.

Table 1: Composition of vegan powdered baking egg

Ingredients	Composition Percentage (wt%)
Plant Protein	40.0 – 50.0
Double-acting baking powder	5.0 – 12.0
Potato starch	0.5 – 5
Plant fiber	5.0 – 8.0
Xanthan gum	0.1 – 1.0

Sucrose ester	30.0 – 32.0

In some embodiments, the vegan powdered baking egg composition of the invention is formulated as shown in Table 2.

Table 2: Composition of vegan powdered baking egg

Ingredients	**Composition Percentage (wt%)**
Soy protein isolate (90% protein content)	48.7
Double-acting baking powder	10.0
Potato Starch	2.0
Pea fiber	7.5
Xanthan gum	0.5
Sucrose ester	31.3

In some embodiments, the vegan powdered baking egg composition of the invention may be prepared as follows:

1.2 Method of Preparation of vegan powdered baking pre-mix

1. Weigh and mix all dry ingredients together until homogeneous.
2. Add 100 ml-120 ml of room temperature water to 2 tablespoons (about 30 g) of powder.
3. Whisk the mixture until no visible lumps are present.

An example of the powdered baking egg composition is shown in Figure 1. The powdered baking pre-mix may, for example, be used to produce food products such as pound cake (Fig. 2) or cookies (Fig. 3).

EXAMPLE 2

2.1 Plant-based Hanjuku egg composition components

<u>For Egg Whites</u>

Tofu is cholesterol free, low in saturated fat, and high in protein. On a moisture-free basis, tofu contains about 50% protein and 27% fat, most of which is polyunsaturated fatty acids. Tofu is also a good source of calcium.

In some cases, the plant-based protein used in a plant-based egg formulation can range into the various types and hardness of tofu. It can also be found in soy yoghurt. It is found that silken tofu is the optimum ingredient for this formulation as it allows for a smooth texture reminiscent of avian eggs. Hard tofu may also be used, though it falls short on various parameters. For instance, hard tofu tends to leave a certain residue which does not resemble the mouthfeel of avian egg whites when used in this formulation. The optimal amount of tofu in the boiled Hanjuku vegan egg formulation ranges from about 40 wt% to about 45 wt%, preferably from 40- 45 wt%, by weight of said egg white composition.

Konnyaku is made from Konjac, a plant of the genus Amorphophallus (taro/yam family). The plant is native to warm subtropical to tropical eastern Asia, such as Japan and China. This ingredient is commonly used in Japanese cuisine. It is also a good plant-based alternative for gelatine. Konnyaku is low in calories, rich in dietary fibre and gives a neutral taste. When the gel is set, Konnyaku yields a firm and springy texture, resembling a normal boiled egg white texture. The optimal amount of Konnyaku in the boiled Hanjuku vegan egg formulation ranges from about 0.1 wt% to about 0.5 wt%, preferably from 0.1-0.5 wt%, by weight of said egg white composition. Alternatives include agar-agar and carrageenan may be used at a similar dosage. However, both agar-agar and carrageenan yield a more brittle texture and lack the springiness that is desired in boiled egg white texture. The combination of Konnyaku and agar-agar/ carrageenan could also be used to obtain a springier texture. Advantageously, Konyyaku and carrageenan are used in combination.

Water is also added to thin the entire beaten egg mixture so that the mixture will exhibit a shear thinning behaviour when force is applied, like a real beaten egg would behave when beaten or stirred for a certain period of time. The above ingredients provide binding, emulsifying, leavening and thickening properties to the mixture, in addition to taste and flavour similar to eggs. Water also serves as the main medium for gums such as Konnyaku to swell and gel. The optimal amount of water in the boiled Hanjuku vegan egg formulation ranges from about 45 wt% to about 50 wt%, preferably from 45-50 wt%, by weight of said egg white composition.

Plant protein is used for protein enrichment. Preferably the type of plant protein used in the boiled Hanjuku vegan egg formulation is fava (faba) bean protein. More preferably a fava bean concentrate is used which comprises 90% protein on a dry basis. To produce a concentrate, dehulled split fava bean cotyledons of faba beans (*Vicia faba*) are mechanically milled and processed. The protein undergoes proprietary physical treatment that provides a cleaner flavour profile, which enables high inclusion rate with no flavour impact. An example

of a fava bean concentrate can be sourced from YANTAI T.FULL BIOTECH CO. LTD. Alternatives include chickpea, pea, rice, sunflower, soy, mung bean proteins, but the fava bean protein is preferred because it confers best sensory textural attributes and possesses great solubility which facilitates use in high moisture applications. The recommended dosage of fava bean concentrate in the boiled Hanjuku vegan egg formulation ranges from about 2 wt% to about 5 wt%, preferably from 2-5 wt%, by weight of said egg white composition. Meanwhile, another fava bean concentration with a protein concentration of 60% marketed as VITESSENCE™ Pulse CT 3602 Protein - 37401G00 by Ingredion Incorporated may be incorporated into the boiled Hanjuku vegan egg.

Soy sauce is a liquid condiment, traditionally made from a fermented paste of soybeans, roasted grain, brine and *Aspergillus oryzae* or *Aspergillus sojae* molds. Soy sauce can either be made through the process of fermentation or by chemical hydrolysis. The strong umami flavour, dark colour and aroma development during production can be attributed to non-enzymatic Maillard browning. Different methods and durations of fermentation, different ratios of water, salt, fermented soy and other additional ingredients may affect the final flavour of the soy sauce. The addition of soy sauce in the boiled Hanjuku vegan egg helps to provide the strong umami flavour that is similar to that of a regular Hanjuku egg. It also contributes to the mid brown colour of a regular Hanjuku egg. The optimal amount of soy sauce in boiled Hanjuku vegan egg formulation ranges from about 2 wt% to about 5 wt%, preferably from 2-5 wt%, by weight of said egg white composition.

Black salt, also known as kala namak, or Himalayan black salt, consists primarily of sodium chloride and traces of sodium bisulfite and hydrogen sulfide which provides black salt its distinctive taste and smell. The concentration of black salt used in an embodiment of the invention is from about 0.4 wt% to 0.6 wt%, preferably 0.4 to 0.6 wt% of the said egg white composition.

For Egg Yolks

Corn starch (or corn flour) is a type of carbohydrate derived from the endosperm of the corn grain kernels. It is a common food ingredient commonly used for the purpose of thickening. The gel amount is transparent and is relatively flavourless, making it a suitable ingredient for increasing the viscosity of the egg yolk. The ingredient comprises of long chains of starch molecules, which when heated in the presence of moisture, will unravel and swell. The swelling process is also known as gelatinization, allowing for the thickening to occur. The optimal amount of corn starch in boiled Hanjuku vegan egg formulation ranges from about 0.5 to about 3 wt%, preferably from 0.5-3 wt%, by weight of said egg yolk composition.

Plant protein is used for protein enrichment. Preferably the type of plant protein used in the vegan egg yolk formulation is pea protein. On top of protein enrichment, pea protein is

used to achieve good and stable emulsion and improve the structure of final product in a cost-effective way. An example of a pea protein isolate is marketed as Puris Pea Protein 2.0.

Plant-based protein could also be sourced from fava bean, mung bean, pea, chickpea, potato, oat, wheat, lentil, lupin, navy bean, peanut, sunflower, almond, corn, canola, quinoa, rice or sorghum. However, soybean protein was found to be most ideal because of its clean taste. The optimal amount of plant protein in boiled Hanjuku vegan egg formulation ranges from about 5 wt% to about 16 wt%, preferably from 5-16 wt%, by weight of said egg yolk composition.

White Sugar is added to provide the sweetness and help accentuate the slight umami flavour in the vegan egg yolk. The optimal amount of white sugar in the said egg yolk formulation ranges from about 5.0 wt% to about 10 wt%, preferably from 5-10 wt%, by weight of said egg yolk composition.

Soy sauce is a liquid condiment, traditionally made from a fermented paste of soybeans, roasted grain, brine and *Aspergillus oryzae* or *Aspergillus sojae* molds. Soy sauce can either be made through the process of fermentation or by chemical hydrolysis. The strong umami flavour, dark colour and aroma development during production can be attributed to non-enzymatic Maillard browning. Different methods and durations of fermentation, different ratios of water, salt, fermented soy and other additional ingredients may affect the final flavour of the soy sauce. The addition of soy sauce in the boiled Hanjuku vegan egg helps to provide the strong umami flavour that is similar to that of a regular Hanjuku egg. It also contributes to the mid brown colour of a regular Hanjuku egg. The optimal amount of soy sauce in boiled Hanjuku vegan egg formulation ranges from about 3 wt% to about 6 wt%, preferably from 3-6 wt%, by weight of said egg yolk composition.

Nutritional yeast, also known as nooch, is a deactivated yeast under the strain of *Saccharomyces cerevisiae*. It is sold commercially as a food product, availability in various forms such as flakes, granules or powder. Nutritional yeast contains all nine essential amino acids, making it a complete protein. In addition, it is rich in vitamin B such as thiamine, riboflavin and niacin. Various studies have also shown that nutritional yeast could help lower cholesterol and boost immunity. This ingredient is commonly used in vegan products as it contributes to the umami or meaty flavour without the addition of any animal products. The optimal amount of nutritional yeast in boiled Hanjuku vegan egg formulation ranges from about 0.5 wt% to about 5 wt%, preferably from 0.5-5 wt%, by weight of said egg yolk composition.

Natural Orange Food Coloring may be used to enhance the color of the vegan egg yolk. An example can be sourced from Sensient Technologies Corp (China) Ltd where the product is marketed as Fusion Nectarine Orange 2L-WS. It is a water-soluble liquid which contains a combination of sorbitol syrup, corn oil, demineralised water, MCT Oil, beta-apo-8`-carotenal, sucrose esters of fatty acids, sunflower lecithin, alpha-tocopherol, ascorbyl

palmitate. The recommended dosage of this yellow coloring in the vegan egg yolk formulation ranges from about 0.5 wt% to about 3.0 wt%, preferably from 0.5-3.0 wt%, by weight of said egg yolk composition. An alternative option for egg yellow food coloring can be sourced from Sensient Technologies Corp (China) Ltd where the product is marketed as Natural Carotene 1.3% L-WS. It is a water-soluble liquid, which contains a combination of glycerol, demineralised water, acacia gum, sunflower oil, MCT oil, beta-carotene from Blakeslea trispora, citric acid, ascorbic acid and tocopherol-rich extract.

In some embodiments, the vegan simulated whole soft boiled Hanjuku egg composition of the invention is formulated as shown in Table 3.

Table 3: Composition of vegan whole soft boiled Hanjuku egg

Ingredients for Hanjuku Egg White	**Composition Percentage (wt%)**
Silken tofu	40.0 – 45.0
Gelling agent	0.40-1.00
Water	45.0 – 50.0
plant protein 90%	2.00 – 5.00
Soy sauce	2.00 – 5.00
Black Salt	0.4 – 0.6
Total	100

Ingredients for Hanjuku Egg Yolk	**Composition Percentage (wt%)**
Corn starch	0.5 – 3
Plant protein	5.00 –16.00
Nutritional Yeast	0.5 – 5
Water	70.0 – 75.0
Orange colouring	0.5 – 3
Soya sauce	3.00 – 6.00
Sugar	5.0 – 10.0
Total	100

In some embodiments, the vegan soft boiled Hanjuku egg composition of the invention is formulated as shown in Table 4.

Table 4: Composition of vegan whole soft boiled Hanjuku egg

Ingredients for Hanjuku Egg White	Composition Percentage (wt%)
Silken tofu	41.98
Konnyaku (Konjac)	0.2
Water	48.82
Carrageenan	0.4
Fava bean protein 90% by Agrocorp	5
Soy sauce	3
Black Salt	0.6
Total	100

Ingredients for Hanjuku Egg Yolk	Composition Percentage (wt%)
Corn starch	1.7
Puris Pea Protein 2.0	10
Nutritional Yeast	2.74
Water	73.82
409169-0010 Nectarine Orange 2L-WS (W)	0.5
Soya sauce	4.44
Sugar	6.8
Total	100

2.2 Method of Preparation

In some embodiments, the vegan soft boiled Hanjuku egg composition of the invention may be prepared as follows:

For Egg White

1. Weigh out wet (tofu, water, soy sauce,) and dry (protein, gelling agents and black salt) ingredients separately.
2. Using a Silverson Mixer, gradually add dry ingredients into wet mix for 1 minute at 4,000 RPM to achieve a homogenous mixture.
3. Heat mixture up to 80 °C to activate the gum.

For Egg Yolk

1. Weigh out wet (water, soy sauce, coloring) and dry (protein, nutritional yeast, sugar, corn starch) ingredients separately

2. Using a Silverson Mixer, gradually add dry ingredients into wet mix for 1 minute at 4,000 RPM to achieve a homogenous mixture.
3. Using a piping bag, pipe about 10 g of yolk mixture into the yolk mold.
4. Freeze yolks until solid (about 1 hour).

Assembly of Whole Egg

1. Fill the egg mold half-full with the heated egg white.
2. Gently drop a single frozen yolk into the mold.
3. Fill the rest of the egg mold with the heated egg white.
4. Cap the mold and leave the vegan egg in the fridge overnight.

EXAMPLE 3

3.1 Plant-based salted egg yolk sauce components

Oil is used to provide melt-in-your-mouth, creamy, rich and smooth taste sensation. It can also blend and enhance the oil-soluble flavor used in the formulation. Preferably the type of oil used in the vegan salted egg yolk sauce formulation is canola oil.

In some cases, sunflower oil may be substituted in the formulation with oils of other origins, which can include sunflower, soybean, and corn. The recommended dosage of canola oil in the vegan salted egg sauce formulation ranges from about 15 wt% to about 20 wt%, preferably from 15-20 wt%, by weight of said salted egg yolk sauce composition.

Chickpeas (*Cicer arietinum*) contain high levels of complex carbohydrates and unsaturated fatty acids, vitamins, and minerals. Two main varieties of chickpeas are the larger round light-colored Kabuli-type, common in the United States, and the smaller dark irregularly shaped Desi-type often used in India and the Middle East. Other legumes may be alternatives to chickpeas. On top of protein enrichment, chickpeas are added to provide gritty mouthfeel associated with salted egg yolk sauce. The concentration of chickpeas used in an embodiment of the invention is from about 35 wt% to about 40 wt%, preferably from 35-40 wt%, by weight of said salted egg yolk sauce composition.

Salt is added to provide the saltiness in the vegan salted egg yolk sauce. It is also one of the tools used for preservation to control microbial growth. Preferably the salt is sea salt. The optimal amount of salt in the formulation ranges from about 0.1 wt% to about 0.5 wt%, preferably from 0.1-0.5 wt%, by weight of said salted egg yolk sauce composition.

Plant-based food flavoring and yeast extract are used to impart salted egg and cheesy notes to the vegan sauce in a cost-effective way. An example of a suitable food

flavoring is pentane-2,3-dione. An example of a suitable yeast extract is marketed as Springarom CH7012/20-PW (Biospringer by Lesaffre). An alternative option to the use of pentane-2,3-dione and yeast extract is vegan (dairy-free) cheese. The optimal amount of flavoring and yeast extract in the formulation ranges from about 0.5 wt% to about 2 wt%, preferably from 0.5-2 wt%, by weight of said salted egg yolk sauce composition, and from about 0.5-1 wt%, preferably from 0.5-1 wt%, by weight of said salted egg yolk sauce composition, respectively. The optimal amount of the vegan cheese when used as a substitute for the flavouring and/or yeast extract ranges from about 3.0 wt% to about 5.0 wt%, preferably from 3-5 wt%, by weight of said salted egg yolk sauce composition.

Natural Orange Food Coloring may be used to enhance the color of the vegan salted egg yolk sauce. An example can be sourced from Sensient Technologies Corp (China) Ltd where the product is marketed as Fusion Nectarine Orange 2L-WS. It is a water-soluble liquid which contains a combination of sorbitol syrup, corn oil, demineralised water, MCT Oil, beta-apo-8`-carotenal, sucrose esters of fatty acids, sunflower lecithin, alpha-tocopherol, ascorbyl palmitate. The recommended dosage of this coloring in the vegan salted egg yolk sauce formulation ranges from about 0.005 wt% to about 0.1 wt%, preferably from 0.005-0.1 wt%, by weight of said salted egg yolk sauce composition. An alternative option for egg yellow food coloring can be sourced from Sensient Technologies Corp (China) Ltd where the product is marketed as Natural Carotene 1.3% L-WS. It is a water-soluble liquid, which contains a combination of glycerol, demineralised water, acacia gum, sunflower oil, MCT oil, beta-carotene from *Blakeslea trispora*, citric acid, ascorbic acid and tocopherol-rich extract.

Water is also added to thin the entire vegan salted egg sauce mixture so that the mixture will exhibit a shear thinning behaviour when force is applied, like a real salted egg sauce would behave when beaten or stirred for a certain period of time. The optimal amount of water in the formulation ranges from about 25 wt% to about 30 wt%, preferably from 25-30 wt%, by weight of said salted egg yolk sauce composition.

Guar gum is a food additive extract from guar bean (*Cyamopsis tetragonoloba*). It is largely used in food as thickener and stabilizer. The optimal amount of guar gum in the formulation ranges from about 0.1 wt% to about 0.5 wt%, preferably from 0.1-0.5 wt%, by weight of said salted egg yolk sauce composition, to recreate the mouthfeel of chicken yolk.

In some embodiments, the vegan salted egg sauce composition of the invention is formulated as shown in Table 5.

Table 5: Composition of vegan salted egg sauce

Ingredient	**Composition Percentage (wt%)**
oil	15.0 – 20.0
chickpeas	35.0 – 40.0
soy sauce	5.0 – 10.0
Salt	0.1 – 0.5
Natural plant-based flavoring	0.5 – 2
Yeast Extract	0.5 – 1.0
Natural orange color	0.005 – 0.1
Water	25.0 – 30.0
Basil Leaves	0.05 – 0.3
Guar Gum	0.1 – 0.5
Chilli Powder	0.1 – 0.5

In some embodiments, the vegan salted egg sauce composition of the invention is formulated as shown in Table 6.

Table 6: Composition of vegan salted egg sauce

Ingredient	Composition Percentage (wt%)
Canola oil	19.53
chickpeas	39.51
Soy sauce	8.11
Salt	0.3
pentane-2,3-dione	1.5
Yeast Extract	0.82
Fusion Nectarine Orange 2L-WS	0.06
Water	29.36
Basil Leaves	0.16
Guar Gum	0.32
Chilli Powder	0.33

In some embodiments, the plant-based vegan simulated salted egg yolk sauce composition further comprises roasted curry leaves and finely chopped chilies. It would be understood that the amount of water or other component in the composition could be adjusted to accommodate the additional components.

In some embodiments, the vegan salted egg sauce composition of the invention may be prepared as follows:

3.2 Method of Preparation

1. In a blender, combine the oil, water, food flavoring, food coloring, chickpeas, salt, soy sauce, basil leaves, chilli powder, guar gum and yeast extract;
2. Blend the combination for about 30 sec, or until completely smooth;
3. Remove fine particles with a fine mesh sieve;
4. Roasted curry leaves and finely chopped chilies may be added for flavor enhancement.

Claims:

1. A plant-based vegan simulated baking egg powder composition comprising potato starch , sucrose ester, plant protein, plant fiber, double-acting baking powder and a gum.

2. The plant-based vegan simulated baking egg powder composition of claim 1, comprising: potato starch in an amount of about 0.5 wt% to about 5 wt%, sucrose ester in an amount of about 30 wt% to about 32 wt%, plant protein in an amount of about 40 wt% to about 50 wt%, plant fiber in an amount of about 5 wt% to about 8 wt%, baking powder in an amount of about 5 wt% to about 12 wt% and gum in an amount of about 0.1 wt% to about 1 wt%, by weight of said baking egg powder composition.

3. The plant-based vegan simulated baking egg powder composition of claim 2, comprising: potato starch in an amount of about 2 wt%, sucrose ester in an amount of about 31.3 wt%, plant protein in an amount of about 48.7 wt%, plant fiber in an amount of about 7.5 wt%, double-acting baking powder in an amount of about 10 wt% and gum in an amount of about 0.5 wt%,
by weight of said baking egg powder composition.

4. The plant-based vegan simulated baking egg powder composition of any one of claims 1 to 3, wherein;
i) the plant protein is selected from the group comprising soy protein, preferably a soy protein isolate, fava bean protein, chickpea protein, pea protein, rice protein and mung bean protein; and/or
ii) the gum is selected from the group comprising Xanthan gum, methylcellulose and gellan gum; and/or
iii) the plant fiber is selected from the group comprising pea, oat and psyllium.

5. The plant-based vegan simulated baking egg powder composition of claim 4, wherein;
i) the plant protein is selected from the group comprising soy protein and fava bean protein, preferably a soy protein isolate; and/or
ii) the gum is Xanthan gum; and/or
iii) the plant fiber is pea fiber.

6. The plant-based vegan simulated baking egg powder composition of claim 5, comprising:

potato starch, sucrose ester, soy protein isolate, pea fiber, double-acting baking powder and Xanthan gum.

7. A method of producing a vegan simulated baking egg powder composition of any one of claims 1 to 6, comprising the step:

i) mix potato starch, sucrose ester, plant protein, plant fiber, double-acting baking powder and a gum until homogenous,

wherein the composition of (i) is formulated to be used for preparation of baked goods.

8. The method of claim 7, further comprising the step:

ii) add 100 ml of water to about 30 g of homogenous baking egg powder composition and mix until the composition is essentially fully hydrated.

9. A baking mixture comprising the composition of any one of claims 1 to 6.

10. A plant-based vegan simulated boiled Hanjuku egg composition comprising a simulated egg yolk encased within a simulated egg white, wherein:

the simulated egg yolk comprises:

a) plant protein selected from the group comprising soy protein, chickpea, pea, rice, sunflower and mung bean proteins,

b) corn starch or corn flour, and

c) nutritional yeast, soy sauce, orange food colouring and sugar; and/or

the simulated egg white comprises:

d) tofu, soy sauce, black salt,

e) plant protein selected from the group comprising fava bean, chickpea, pea, rice, sunflower and mungbean proteins, and

f) one or more gelling agents selected from the group comprising konnyaku, carrageenan and agar-agar.

11. The plant-based vegan simulated boiled Hanjuku egg composition of claim 10, wherein

in a) the plant protein is soy protein or pea protein,

in e) the plant protein is fava bean protein, and/or

in f) the gelling agents are konnyaku and carrageenan.

12. The plant-based vegan simulated boiled Hanjuku egg composition of claim 10 or 11, wherein:

the simulated egg yolk comprises:

a) plant protein in an amount of about 5 wt% to about 16 wt%;

b) corn starch or corn flour in an amount of about 0.5 wt% to about 3 wt%, and

c) nutritional yeast in an amount of about 0.5 wt% to about 5 wt%, soy sauce in an amount of about 3 wt% to about 6 wt%, orange food colouring in an amount of about 0.5 wt% to about 3 wt% and sugar in an amount of about 5 wt% to about 10 wt%, by weight of said egg yolk composition; and/or

the simulated egg white comprises:

d) tofu in an amount of about 40 wt% to about 45 wt%, soy sauce in an amount of about 2 wt% to about 5 wt% and black salt in an amount of about 0.4 wt% to about 0.6 wt%;

e) plant protein in an amount of about 2 wt% to about 5 wt%, and

f) gelling agents in an amount of about 0.4 wt% to about 1.0 wt%,

by weight of said egg white composition.

13. The plant-based vegan simulated boiled Hanjuku egg composition of claim 12, wherein:

the simulated egg yolk comprises:

a) pea protein in an amount of about 10 wt%;

b) corn starch or corn flour in an amount of about 1.7 wt%, and

c) nutritional yeast in an amount of about 2.74 wt%, orange food colouring in an amount of about 0.5 wt% and sugar in an amount of about 6.8 wt%, soy sauce in an amount of about 4.44 wt%, and/or

the simulated egg white comprises:

d) tofu in an amount of about 41.98 wt%, soy sauce in an amount of about 3.0 wt% and black salt in an amount of about 0.6 wt%;

e) plant protein in an amount of about 5 wt%, and

f) gelling agents in an amount of about 0.6 wt%,

by weight of said egg white composition.

14. The plant-based vegan simulated boiled Hanjuku egg composition of any one of claims 10 to 13, wherein in c) the yellow food colouring is selected from Lemon yellow, from fruits and vegetables, and natural yellow, comprising maltodextrin, gardenia yellow and citric acid.

15. The plant-based vegan simulated boiled Hanjuku egg composition of any one of claims 10 to 14, wherein:

the simulated egg yolk comprises plant protein, corn starch or corn flour, nutritional yeast, soy sauce, yellow food colouring and sugar; and

the simulated egg white comprises tofu, carrageenan, soy sauce, black salt, fava bean protein and konnyaku.

16. A method for producing a vegan simulated boiled Hanjuku egg composition of any one of claims 10 to 15, comprising the steps:

i) for a first mixture combine, until well-mixed, water, tofu, soy sauce;

ii) gradually add plant protein, black salt, and gelling agents into the mixture from i) and mix until homogenous;

iii) heat the mixture to about 80 °C to activate the gelling agents;

iv) for a second mixture combine, until well-mixed, water, soy sauce and colouring agent;

v) gradually add plant protein selected from the group comprising soy protein, chick pea, pea, rice, sunflower and mung bean proteins, flavouring, corn starch or corn flour, into the mixture from iv) and mix until homogenous;

vi) add about 10 g of the mixture from v) into a yolk mold;

vii) freeze yolk until solid;

viii) fill an egg mold about half full with heated egg white mixture iii) and gently place a single frozen egg yolk from vii) into the mold.

ix) fill the rest of the egg mold with heated egg white mixture iii), cap the mold and place in refrigerator overnight to form a simulated boiled Hanjuku egg.

17. The method of claim 16, comprising the steps:

i) for a first mixture combine, until well-mixed, water, tofu, soy sauce;

ii) gradually add fava bean protein, black salt, carrageenan and konnyaku into the mixture from i) and mix until homogenous;

iii) heat the mixture to about 80 °C to activate the konnyaku;

iv) for a second mixture combine, until well-mixed, water, soy sauce and colouring agent;

v) gradually add pea protein, nutritional yeast, sugar and corn starch into the mixture from iv) and mix until homogenous;

vi) add about 10 g of the mixture from v) into a yolk mold;

vii) freeze yolk until solid;

viii) fill an egg mold about half full with heated egg white mixture iii) and gently place a single frozen egg yolk from vii) into the mold.

ix) fill the rest of the egg mold with heated egg white mixture iii), cap the mold and place in refrigerator overnight to form a simulated boiled Hanjuku egg.

18. A plant-based vegan simulated boiled Hanjuku egg composition produced by the method of claim 16 or 17.

19. A kit comprising a plant-based vegan simulated boiled Hanjuku composition of any one of claim 10 to 15.

20. A plant-based vegan simulated salted egg yolk sauce composition, comprising;
soy sauce, chickpea, water, oil, yeast extract, natural food flavoring, natural orange food coloring, basil leaves, chilli powder, guar gum and salt.

21. The plant-based vegan simulated salted egg yolk sauce composition of claim 20, wherein;
in b) the oil is selected from the group comprising sunflower, canola, soybean and corn; and/or
in c) the natural food flavoring comprises pentane-2,3-dione; and/or
in d) the natural orange food coloring comprises:

i) sorbitol syrup, corn oil, demineralised water, MCT Oil, beta-apo-8`-carotenal, sucrose esters of fatty acids, sunflower lecithin, alpha-tocopherol, ascorbyl palmitate, or

ii) glycerol, water, acacia gum, sunflower oil, medium-chain triglycerides (MCT) oil, beta-carotene, citric acid, ascorbic acid and tocopherol.

22. The plant-based vegan simulated salted egg yolk sauce composition of any one of claims 20 or 21, comprising;
soy sauce in an amount of about 5 wt% to about 10 wt%, chickpea in an amount of about 35 wt% to about 40 wt%, oil in an amount of about 15 wt% to about 20 wt%, yeast extract in an amount of about 0.5 wt% to about 1 wt%, natural food flavoring in an amount of about 0.5 wt% to about 2 wt%, natural orange coloring in an amount of about 0.005 wt% to about 0.1 wt%, salt in an amount of about 0.1 wt% to about 0.5 wt% and water in an amount of about 25 wt% to about 30 wt%, basil leaves in an amount of about 0.05 wt% to 0.3 wt%, guar gum in an amount of 0.1 wt% to about 0.5 wt%, chilli powder in an amount of about 0.1 wt% to about 0.5 wt%, by weight of said salted egg yolk sauce composition.

23. The plant-based vegan simulated salted egg yolk sauce composition of claim 22, comprising;
soy sauce in an amount of about 8.11 wt%, chickpea in an amount of about 39.51 wt%, canola oil in an amount of about 19.53 wt%, yeast extract in an amount of about 0.82 wt%, pentane-2,3-dione in an amount of about 1.5 wt%, natural orange coloring in an amount of about 0.06 wt%, salt in an amount of about 0.3 wt% and water in an amount of about 29.36 wt%, basil

leaves in an amount of about 0.16 wt%, guar gum in an amount of about 0.32 wt%, chilli powder in an amount of about 0.33 wt%, by weight of said salted egg yolk sauce composition.

24. The plant-based vegan simulated salted egg yolk sauce composition of any one of claims 20 to 23, wherein the natural food flavoring and/or yeast extract are substituted by vegan dairy-free cheese in an amount of about 3.0 wt% to about 5.0 wt%, by weight of said salted egg yolk sauce composition.

25. The plant-based vegan simulated salted egg yolk sauce composition of any one of claims 20 to 24, further comprising roasted curry leaves and finely chopped chilies.

26. A method of producing a vegan simulated salted egg yolk sauce composition of any one of claims 20 to 24, comprising the steps:

i) in a blender, mix, chickpea, water, oil, yeast extract, natural food flavoring, natural orange food coloring, soy sauce, basil leaves, chilli powder, guar gum and salt for about 30 sec, or until smooth and homogenous; and

ii) remove fine particles with a sieve.

27. The method of claim 26, further comprising the addition of roasted curry leaves and finely chopped chilies.

28. A kit comprising a plant-based vegan simulated salted egg yolk sauce composition of any one of claims 20 to 25.