

DESCRIPTION

Title of the Invention: METHOD FOR PRODUCING OIL OR FAT COMPOSITION

Technical Field

[0001]

The present invention relates to a method for producing an edible oil or fat composition, and more specifically, relates to a method for producing an oil or fat composition that is suitable in the case of using oil or fat in which partially hydrogenated oil or fat is reduced or is not contained.

Background Art

[0002]

It has been reported that a trans-fatty acid increases LDL cholesterol or increases cancer-causing risk, and recently, a health trend has increased, and thus, there is a demand for using an oil or fat composition in which the trans-fatty acid rich in partially hydrogenated oil or fat is reduced or is not contained.

However, in a case where the partially hydrogenated oil or fat is reduced, peculiar taste or sweetness that is referred to as hydrogenated smell becomes bland, and the taste decreases

at the time of being used together with milk fat.

In the case of supplementing a decrease in the taste or the like by adding an essence or the like, there is a concern that an expression balance of the taste or the like is lost at the top, the middle, and the bottom that are each stage of taste sense. On the other hand, even in the case of adding a large amount of milk fat, it is not easy to supplement a decrease in the taste or the like.

[0003]

Therefore, in Patent Document 1, it is proposed to use partially hydrogenated oil or fat that is slightly oxidized, but an improvement effect is not yet capable of being satisfied.

Citation List

Patent Document

[0004]

Patent Document 1: JP-A-2009-89684

Summary of the Invention

Technical Problem

[0005]

The invention has been made in consideration of the problems of the related art, and an object thereof is to provide a novel and useful production method in which it is possible to raise taste or the like with a good balance even in the case

of using oil or fat in which partially hydrogenated oil or fat is reduced or is not contained.

In addition, another object of the invention is to provide a novel and useful oil or fat composition that can be provided as with the product of the related art in any form of a liquid, a solid, and the like, and can be directly applied to the application of the related art.

Solution to Problem

[0006]

The present inventors have conducted intensive studies and trial-and-error with respect to the objects described above, and thus, have found that the objects can be attained by the following inventions.

That is, the invention is a method for producing an oil or fat composition, comprising: preparing a butter product by heating a water-containing mixture containing butter and dairy product until a water content becomes less than 1 mass%; and producing an oil or fat composition by mixing the butter product with edible oil or fat.

[0007]

It is preferable that 0.5 - 99 parts by mass of the butter is contained with respect to 1 part by mass of the dairy product, as the water-containing mixture.

[0008]

It is preferable that the dairy product is dry milk, and 9 - 99 parts by mass of the butter is contained with respect to 1 part by mass of the dry milk, as the water-containing mixture.

[0009]

It is preferable that the dry milk is one type or two types selected from powdered skim milk and whole powdered milk.

[0010]

It is preferable that the dairy product is liquid milk, and 0.5 - 40 parts by mass of the butter is contained with respect to 1 part by mass of the liquid milk, as the water-containing mixture.

[0011]

It is preferable that the liquid milk is one type or two or more types selected from bovine milk, dairy cream, butter milk, fermented milk, lactic acid bacteria beverage, and condensed milk.

[0012]

It is preferable that the water is present in the range of 12 - 75 mass% in the water-containing mixture.

[0013]

It is preferable that heating is performed under ordinary pressure.

[0014]

It is preferable that salt-free butter is used as the

butter.

[0015]

It is preferable that when the butter product is prepared, filtration is performed after heating.

[0016]

It is preferable that 0.005 – 5 mass% of the butter product is contained.

[0017]

It is preferable that the oil or fat composition is a plastic oil or fat composition.

[0018]

It is preferable that the plastic oil or fat composition is a water-in-oil type.

Advantageous Effects of the Invention

[0019]

According to the method of the invention, it is possible to produce an oil or fat composition that is capable of raising taste or the like with a good balance even in the case of using oil or fat in which partially hydrogenated oil or fat is reduced or is not contained. In addition, even in a case where a butter product and partially hydrogenated oil or fat are actively used together, each effect is not impaired, and thus, it is possible to produce an oil or fat composition in which taste or the like is further improved with a good balance by actively using the

butter product and the partially hydrogenated oil or fat together, compared to a simple partially hydrogenated oil or fat blend type. The oil or fat composition can be provided in any form of a liquid, a solid, and the like, regardless of the presence or absence or the amount of the partially hydrogenated oil or fat.

Accordingly, it is possible to more arbitrarily design the contrasting density of the taste of the oil or fat composition by using the method of the invention, compared to the related art.

Mode for Carrying Out the Invention

[0020]

A method for producing an oil or fat composition of the invention is divided into a butter product preparation step and an oil or fat composition production step.

[0021]

<<Butter Product Preparation Step>>

In this step, a butter product is prepared by heating a water-containing mixture containing butter and dairy product until a water content becomes less than 1 mass%. The next step is performed by using the butter product as an intermediate ingredient.

[0022]

<Ingredient>

Butter and dairy product are contained.

[Butter]

The butter that can be used as an ingredient of the invention may not be limited insofar as the butter corresponds to butter defined as butter in ministerial ordinance on compositional standards of milk and a milk product (Ministerial Ordinance on Milk, Ordinance of the Ministry of Health and Welfare No. 52). According to the definition, the butter is obtained by "kneading and pressurizing fat particles obtained from raw milk, bovine milk, or special bovine milk", and is sorted to two types of "fermented butter" that is prepared by performing lactic fermentation with respect to ingredient milk, and "unfermented butter" that is prepared as it is. Further, the butter is sorted to two types of "salted butter" prepared by adding dietary salt thereto, and "salt-free butter" prepared without adding dietary salt thereto. That is to say, the butter is sorted to four types.

In the invention, it is preferable to use "salt-free butter", and it is more preferable to use "salt-free unfermented butter".

[0023]

[Dairy product]

The dairy product that can be used as an ingredient of the invention may not be limited insofar as the dairy product corresponds to milk defined in ministerial ordinance on

compositional standards of milk and a milk product (Ministerial Ordinance on Milk, Ordinance of the Ministry of Health and Welfare No. 52) (excluding butter that is one type of milk product). That is, in the invention, the butter described above is distinguished from the dairy product, and it is assumed that both of the butter and the dairy product are used together.

The dairy product is divided into dry milk and liquid milk. Examples of the dry milk include powdered skim milk, whole powdered milk, and the like, and the powdered skim milk is preferable. In addition, examples of the liquid milk include bovine milk, dairy cream, butter milk, fermented milk, lactic acid bacteria beverage, condensed milk, and the like, and the dairy cream, the butter milk, the lactic acid bacteria beverage, and the condensed milk are preferable, the dairy cream, the butter milk, and the lactic acid bacteria beverage are more preferable, and the dairy cream and the butter milk are even more preferable. The dairy product may be independently used, or two or more types thereof may be used together.

[0024]

<Blend>

The butter contains water, in accordance with the compositional standards, and the dairy product inherently contains water when it is in the form of a liquid, and thus, the water can be used as the "water" in the water-containing

mixture. Here, adding water to increase water in the water-containing mixture is not excluded.

It is preferable that 0.5 - 99 parts by mass of the butter is contained with respect to 1 part by mass of the dairy product, as the water-containing mixture. By containing 0.5 - 99 parts by mass of the butter regardless of the type of dairy product, an effect of using the dairy product and the butter together is significantly obtained.

[0025]

In a case where the dry milk is used as the dairy product, it is preferable to contain 9 - 99 parts by mass of the butter, it is more preferable to contain 50 - 99 parts by mass of the butter, and it is even more preferable to contain 70 - 99 parts by mass of the butter, with respect to 1 part by mass of the dry milk, as the water-containing mixture.

In a case where the liquid milk is used as the dairy product, it is preferable to contain 0.5 - 40 parts by mass of the butter, it is more preferable to contain 1 - 40 parts by mass of the butter, it is even more preferable to contain 2.3 - 30 parts by mass of the butter, it is still even more preferable to contain 5 - 30 parts by mass of the butter, and it is particularly preferable to contain 7 - 25 parts by mass of the butter, with respect to 1 part by mass of the liquid milk, as the water-containing mixture.

In consideration of the types of dairy product separately,

the ranges described above are preferred.

[0026]

In addition, the total content of the butter and the dairy product of the water-containing mixture is preferably 80 - 100 mass%, is more preferably 90 - 100 mass%, is even more preferably 95 - 100 mass% or less, and is still even more preferably 100 mass%.

[0027]

The water content of the water-containing mixture is preferably 12 - 75 mass%, is more preferably 14 - 52 mass%, is even more preferably 15 - 33 mass%, and is still even more preferably 17 - 28 mass%. If the water content is 12 mass% - 75 mass%, a water phase derived from the water can be present with a significant effect.

[0028]

<Step>

The water-containing mixture is obtained by mixing the butter and the dairy product .

A mixing method is not particularly limited, but for example, the butter is heated and melted, and the dairy product is put therein, and then, the butter and the dairy product are stirred. In the case of using the dry milk, it is preferable that the dairy product is dissolved in the water contained in the butter, and it is preferable that the butter is heated and melted, and then, the dairy product is put therein.

[0029]

Next, the water-containing mixture is heated until the water content is reduced to be less than 1 mass%. In a case where the water content is reduced to the range, a sufficient heating time is ensured.

In addition, at this time, in order to transfer heat homogeneously, it is preferable to continuously stir the water-containing mixture.

Note that, the step can be consecutively performed in the same container, and in this case, there is a possibility that the generation of the water-containing mixture according to the progress of the mixing and the heating of the water-containing mixture progress in parallel, but there is no particular problem.

[0030]

A temperature of the heating, for example, is 100°C or higher, under ordinary pressure. Accordingly, in a case where an operation is performed by putting the water-containing mixture into the opened container, the heating is performed to 100°C or higher. It is preferable that the heating in the invention is heating under ordinary pressure.

[0031]

The obtained product can be directly used as a completed butter product, but in the case of removing insoluble matters such as protein denaturation by performing filtration in a warm

state, handling thereafter becomes easier. Accordingly, it is recommended to perform filtration using filter paper or the like, as an aftertreatment.

Note that, the water content of less than 1 mass% is an upper limit value at the time of evaluating the butter product as a completed product, and the water content may relatively increase in a case where the completed product is obtained after the filtration, but the upper limit value is set by also considering the case of performing the filtration.

[0032]

<<Oil or Fat Composition Production Step>>

The butter product that is prepared by performing the step described above is mixed with edible oil or fat, and thus, an oil or fat composition is produced.

<Ingredients Other than Butter Product>

[Oil or Fat]

The edible oil or fat that can be used as a main ingredient of the invention is not particularly limited, but examples of the edible oil or fat include palm oil, palm kernel oil, coconut oil, rapeseed oil, soybean oil, cotton seed oil, sunflower seed oil, rice oil, safflower oil, olive oil, sesame oil, shea butter, sal fat, mango oil, illipe fat, cacao butter, pork fat (lard), beef fat, milk fat, and fractionated oil or processed oil thereof (those subjected to one or more treatments of curing and a transesterification reaction).

[0033]

[Other Ingredients]

In the invention, a food material, a food additive, or the like that is usually added to margarines or the like can be further contained in the range of a usually added amount. That is, a milk component such as milk fat degradant, milk protein degradant, butter, and a whey powder, water, sugar such as liquid sugar, dietary salt, a synthetic emulsifier such as glycerin fatty acid ester, sorbitan fatty acid ester, sucrose fatty acid ester, and propylene glycol fatty acid ester, a natural emulsifier such as plant lecitin, egg yolk lecitin, and enzymatic decomposition lecitin, essence, vitamins such as vitamin E, a colorant such as carotene, caramel, and a monascus pigment, a thickening stabilizer, acidulant such as a citric acid and a lactic acid, an antioxidant such as tocopherol and tea extract, plant protein such as wheat protein or soybean protein, a seasoning agent, a pH adjuster, a food preservative, a shelf life improver, fruit, fruit juice, coffee, a nut paste, spice, cacao mass, a cocoa powder, grain, bean, vegetable, meat, fish and shellfish, and the like can be suitably blended.

[0034]

<Blend of Butter Product>

Even in a case where a small amount of the butter product of approximately 0.005 mass% is blended with respect to the

oil or fat composition, a significant effect is obtained. The butter product of preferably 0.005 - 5 mass%, more preferably 0.005 - 3 mass%, and even more preferably 0.01 - 3 mass% is blended with respect to the oil or fat composition.

[0035]

<Step>

The butter product can be handled as with the edible oil or fat, and thus, can be combined with the edible oil or fat by a common method, as with the case of using a plurality of types of edible oil or fat together.

[0036]

<Completed Product (Oil or Fat Composition)>

Even in a case where the oil or fat composition that is produced by the method of the invention is used as not only liquid oil or a water-in-oil type plastic oil or fat composition for spread, but also an ingredient of Danish, cream, or the like, as a water-in-oil type plastic oil or fat composition for kneading, foldout, wrapping, coating cream, sandwich cream, or the like, taste and sweetness are raised with a good balance.

Examples

[0037]

Hereinafter, the invention will be described in more detail by examples and comparative examples. However, the invention is not limited to the following examples.

[0038]

(Production of Butter Product of Examples and Comparative Examples)

Various types of ingredients shown in Table 1 were used at various blending ratios. Here, in all case, butters were melted in an opened container, and dairy products were put therein, the butters and the dairy products were heated at 100°C while being stirred, water was sufficiently evaporated, and filtration was performed. The water contents after the filtration were less than 1 mass%.

[0039]

[Table 1]

	Salt-free butter		Dairy product			Total water (mass%)
	Water (mass%)	Parts by mass	Item	Water (mass%)	Parts by mass	
Butter product A	15.8	90	Bovine milk	87.4	10	23.0
Butter product B	15.8	95	Bovine milk	87.4	5	19.4
Butter product C	15.8	70	Bovine milk	87.4	30	37.3
Butter product D	15.8	50	Bovine milk	87.4	50	51.6
Butter product E	15.8	100			0	15.8
Butter product F	15.8	98.9	Powdered skim milk	3.8	1.1	15.7
Butter product G	15.8	98.9	Whole powdered milk	3.0	1.1	15.7
Butter product H	15.8	90	Dairy cream	49.5	10	19.2
Butter product I	15.8	90	Butter milk	90.7	10	23.3
Butter product J	15.8	90	Lactic acid bacteria beverage	88.4	10	23.1
Butter product K	15.8	90	Condensed milk	26.1	10	16.8

[0040]

The ingredients used were the following commercially available products.

Salt-Free Butter (Unfermented, manufactured by Fonterra (Japan) Limited)

Bovine Milk (Product Name: Oishii Gyunyu, manufactured by Meiji Co., Ltd.)

Powdered Skim Milk (Product Name: Skim Milk, manufactured by MORINAGA MILK INDUSTRY CO., LTD.)

Whole Powdered Milk (Product Name: Hokkaido Milk Powder, manufactured by Yotsuba Milk Products Co., Ltd)

Dairy Cream (Product Name: Special Hokkaido Pure Fresh Cream, manufactured by Takanashi Milk Products Co., Ltd.)

Butter Milk (Product Name: Butter Milk, manufactured by CALPIS Co., Ltd.)

Lactic Acid Bacteria Beverage (Product Name: Calpis, manufactured by CALPIS Co., Ltd.; Dairy Lactic Acid Bacteria Beverage (Sterilized), non-fat milk solid of 3.9%)

Condensed Milk (Product Name: Hokkaido Condensed Milk, manufactured by MEGMILK SNOW BRAND Co., Ltd.)

[0041]

(Production of Evaluation Product)

Various butter products were contained in various oils or fats along with various ingredients, at various blending ratios, and three types of oil or fat compositions of a

water-in-oil type plastic oil or fat composition for foldout, a water-in-oil type plastic oil or fat composition for spread, and liquid oil were produced by an ordinary method. Further, Danish was produced by using the water-in-oil type plastic oil or fat composition for foldout. Then, the Danish, the water-in-oil type plastic oil or fat composition for spread, and the liquid oil were set to an evaluation product.

Note that, the characteristic ingredient or step of each of the evaluation products will be individually additionally described below.

[0042]

(Evaluation Method)

The evaluation products were eaten by six people, and richness of sweetness and butter taste at the top, the middle, and the bottom were rated using evaluation points 1 (low) to 7 (high), and an average of the values of six people was employed as an evaluation value.

[0043]

<Evaluation Test 1 (Danish)>

· Characteristic Ingredients Other than Butter Product

Oil or Fat A (Preparation) SFC 10°C/20°C/30°C/35°C

= 69.0/47.0/29.0/18.5

Rising Melting Point: 45°C

Lard (Product Name: MasterChef Black & White Pig Lard, manufactured by J-OIL MILLS, Inc.)

Milk Fat (manufactured by Fonterra (Japan) Limited)

Salt-Free Butter (Unfermented, manufactured by Fonterra
(Japan) Limited)

[0044]

· Production of Water-in-Oil Type Plastic Oil or Fat Composition
for Foldout

An oil phase and a water phase were each prepared in accordance with blends shown in Table 2. Then, the oil phase was thermally retained at approximately 60°C, and the water phase at an ordinary temperature was put therein while being stirred. After that, mixing and stirring were performed for approximately 10 minutes, and thus, a water-in-oil type preliminarily emulsified product was obtained. The preliminarily emulsified product was rapidly cooled by a continuous cooling and kneading device, in accordance with an ordinary method, and thus, a water-in-oil type plastic oil or fat composition for foldout was obtained.

[0045]

· Blend of Danish

· · Blend of Dough Ingredient

Bread Flour	100 parts by mass
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Breadmaking Improver (Product Name: PRIMA PANE, manufactured by Puratos Japan Co., Ltd.)	0.5 part by mass
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Raw Yeast	5 parts by mass
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Superfine Sugar	10 parts by mass
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Dietary Salt 1.3 parts by mass

Powdered Skim Milk 3 parts by mass

Margarine 10 parts by mass

(Product Name: Meister Gold Super, manufactured by J-OIL
MILLS, Inc.)

Whole Egg 6 parts by mass

Water 45 parts by mass

· Water-in-Oil Type Plastic Oil or Fat Composition for Foldout

30 parts by mass

[0046]

· Production of Danish

First, a dough ingredient was put into a mixer bowl, was mixed at a low speed for 6 minutes and at a mid-low speed for 6 minutes, and thus, dough at a kneading temperature of 23°C was prepared. Next, fermentation was performed at a room temperature for 20 minutes, and then, the dough was cooled overnight at -5°C. Next, the water-in-oil type plastic oil or fat composition for foldout was folded out, three-folding was performed twice, and then, dough rounding was performed at -5°C for 1 hour, and three-folding was performed once, and then, dough rounding was performed at -5°C for 1 hour, and flattening was performed to a thickness of 3 mm. The dough was cut into 11 cm squares, fermentation was performed in a roasting furnace at 36°C and humidity of 75% for 60 minutes, and baking was performed in an upper heater at 200°C and a lower heater at

180°C for 14 minutes, and thus, completed Danish was obtained.

[0047]

Evaluations are as follows.

[Table 2]

	No. 1	No. 1	No. 2	No. 2	No. 3	No. 4	No. 3	No. 5
	Comparative Example	Example	Comparative Example	Example	Example	Example	Comparative Example	Example
Oil or fat A	47.051	45.051	45.521	45.046	45.378	45.450	45.378	45.359
Lard			1.530	1.505	1.523	1.526	1.523	1.522
Butter product A		2.000		0.500	0.150	0.075		0.020
Milk fat	26.615	26.615	26.615	26.615	26.615	26.615	26.615	26.615
Salt-free butter	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000
Water	10.000	10.000	10.000	10.000	10.000	10.000	10.000	10.000
Liquid sugar	4.000	4.000	4.000	4.000	4.000	4.000	4.000	4.000
Dietary salt	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Emulsifier	1.100	1.100	1.100	1.100	1.100	1.100	1.100	1.100
Essence A							0.358	0.358
Essence B	0.208	0.208	0.208	0.208	0.208	0.208		
Vitamin E	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
Carotene	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Evaluation in Danish								
Sweetness at top	3.5	7.0	3.5	5.0	4.5	4.5	3.5	4.0
Sweetness at middle	4.0	5.0	4.0	5.0	4.5	4.5	4.0	4.5
Sweetness at bottom	4.0	7.0	5.0	6.5	6.5	6.0	5.5	6.0
Butter taste at top	2.5	7.0	3.0	6.5	6.0	5.5	4.5	5.5
Butter taste at middle	3.0	6.0	3.5	5.5	5.5	5.5	4.8	5.0
Butter taste at bottom	3.0	7.0	4.0	6.5	6.0	5.5	4.5	5.5

[0048]

<Evaluation Test 2 (Water-in-Oil Type Plastic Oil or Fat Composition for Spread)>

· Characteristic Ingredients Other than Butter Product

Oil or Fat B (Preparation) SFC 10°C/20°C/30°C/35°C

= 17.5/8.5/4.5/3.0

Rising Melting Point: 35°C

Milk Fat (manufactured by Fonterra (Japan) Limited)

Whole Powdered Milk (Product Name: Hokkaido Milk Powder, manufactured by Yotsuba Milk Products Co., Ltd)

[0049]

· Production of Water-in-Oil Type Plastic Oil or Fat Composition for Spread

An oil phase and a water phase were each prepared in accordance with blends shown in Table 3 and Table 4. Then, the oil phase was thermally retained at approximately 60°C, and the water phase at an ordinary temperature was put therein while being stirred. After that, mixing and stirring were performed for approximately 10 minutes, and thus, a water-in-oil type preliminarily emulsified product was obtained. The preliminarily emulsified product was rapidly cooled by a continuous cooling and kneading device, in accordance with an ordinary method, and thus, a water-in-oil type plastic oil or fat composition for spread was obtained.

[0050]

Evaluations are as follows.

[Table 3]

	No. 4 Comparative Example	No. 6 Example	No. 7 Example	No. 8 Example	No. 9 Example	No. 5 Comparative Example	No. 6 Comparative Example
Oil or fat B	82.370	81.870	81.870	81.870	81.870	81.870	81.870
Butter product A		0.500					
Butter product B			0.500				
Butter product C				0.500			
Butter product D					0.500		
Butter product E						0.500	
Milk fat							0.45 *1
Whole powdered milk							0.005 *2
Water	16.000	16.000	16.000	16.000	16.000	16.000	16.045
Dietary salt	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Emulsifier	0.560	0.560	0.560	0.560	0.560	0.560	0.560
Essence C	0.049	0.049	0.049	0.049	0.049	0.049	0.049
Vitamin E	0.020	0.020	0.020	0.020	0.020	0.020	0.020
Carotene	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Evaluation in margarine							
Sweetness at top	2.8	4.1	3.9	3.5	3.5	3.3	2.8
Sweetness at middle	2.9	4.4	4.3	3.8	3.9	3.5	2.8
Sweetness at bottom	2.5	4.4	4.0	3.9	4.0	3.7	3.2
Butter taste at top	2.8	3.9	3.9	3.5	4.1	3.5	2.8
Butter taste at middle	2.9	4.4	4.1	3.9	4.3	3.6	2.9
Butter taste at bottom	3.0	4.6	4.1	4.1	4.1	3.4	2.8

*1 Amount equivalent to milk fat contained in butter product A

*2 Amount equivalent to whole powdered milk contained in bovine milk of butter product A

[0051]

[Table 4]

	No. 7	No. 10	No. 11	No. 12	No. 13	No. 14	No. 15
	Comparative Example	Example	Example	Example	Example	Example	Example
Oil or fat B	82.370	81.870	81.870	81.870	81.870	81.870	81.870
Butter product F		0.500					
Butter product G			0.500				
Butter product H				0.500			
Butter product I					0.500		
Butter product J						0.500	
Butter product K							0.500
Water	16.000	16.000	16.000	16.000	16.000	16.000	16.000
Dietary salt	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Emulsifier	0.560	0.560	0.560	0.560	0.560	0.560	0.560
Essence C	0.049	0.049	0.049	0.049	0.049	0.049	0.049
Vitamin E	0.020	0.020	0.020	0.020	0.020	0.020	0.020
Carotene	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Evaluation in margarine							
Sweetness at top	2.8	3.7	3.3	4.2	4.1	3.7	3.1
Sweetness at middle	2.9	4.3	3.9	4.6	4.2	4.2	3.7
Sweetness at bottom	2.5	4.2	3.8	4.6	4.4	4.2	3.8
Butter taste at top	2.8	3.7	3.1	4.0	4.1	3.7	3.1
Butter taste at middle	2.9	4.3	3.7	4.2	4.4	4.2	3.9
Butter taste at bottom	3.0	4.3	3.7	4.2	4.0	4.0	3.9

[0052]

<Evaluation Test 3 (Liquid Oil)>

· Characteristic Ingredients Other than Butter Product

Rapeseed Oil (Product Name: Smooth Canola Oil,
manufactured by J-OIL MILLS, Inc.)

Milk Fat (manufactured by Fonterra (Japan) Limited)

[0053]

· Production of Liquid Oil

Ingredients were prepared in accordance with blends
shown in Table 5, and were mixed, and thus, liquid oil was
obtained.

[0054]

Evaluations are as follows.

[Table 5]

	No. 8	No. 16	No. 17	No. 18	No. 19	No. 20	No. 21	No. 22	No. 9	No. 1
	Comparative Example	Example	Example	Example	Example	Example	Example	Example	Comparative Example	Reference Example
Rapeseed oil	99.000	99.000	99.000	99.000	99.000	99.000	99.000	99.000	99.000	99.000
Butter product A		1.000								
Butter product E									1.000	
Butter product F			1.000							
Butter product G				1.000						
Butter product H					1.000					
Butter product I						1.000				
Butter product J							1.000			
Butter product K								1.000		
Milk fat										1.000
Evaluation in liquid oil										
Sweetness at top	1.0	3.1	2.7	2.3	3.2	3.1	2.7	2.1	1.8	1.1
Sweetness at middle	1.0	3.4	3.3	2.9	3.6	3.2	3.2	2.7	2.0	1.2
Sweetness at bottom	1.0	3.4	3.2	2.8	3.6	3.4	3.2	2.8	2.2	1.3
Butter taste at top	1.0	2.9	2.7	2.1	3.0	3.1	2.7	2.1	1.8	1.2
Butter taste at middle	1.0	3.4	3.3	2.7	3.2	3.4	3.2	2.9	1.9	1.3
Butter taste at bottom	1.0	3.6	3.3	2.7	3.2	3.0	3.0	2.9	1.8	1.4

[0055]

From the results of the tests, it was found that according to the method of the invention, it was possible to raise the taste or the like with a good balance by adding a small amount of the butter product. In addition, it was found that it was essential to blend the butter and the dairy product in the butter product, and in the butter product E in which only the butter was heated, the effect of raising the taste was impaired.

CLAIMS

1. A method for producing an oil or fat composition, comprising:

preparing a butter product by heating a water-containing mixture containing butter and dairy product until a water content becomes less than 1 mass%; and

producing an oil or fat composition by mixing the butter product with edible oil or fat.

2. The method for producing an oil or fat composition according to claim 1, wherein

0.5 - 99 parts by mass of the butter is contained with respect to 1 part by mass of the dairy product, as the water-containing mixture.

3. The method for producing an oil or fat composition according to claim 1 or 2, wherein

the dairy product is dry milk, and

9 - 99 parts by mass of the butter is contained with respect to 1 part by mass of the dry milk, as the water-containing mixture.

4. The method for producing an oil or fat composition according to claim 3, wherein

the dry milk is one type or two types selected from powdered skim milk and whole powdered milk.

5. The method for producing an oil or fat composition according to claim 1 or 2, wherein

the dairy product is liquid milk, and

0.5 - 40 parts by mass of the butter is contained with respect to 1 part by mass of the liquid milk, as the water-containing mixture.

6. The method for producing an oil or fat composition according to claim 5, wherein

the liquid milk is one type or two or more types selected from bovine milk, dairy cream, butter milk, fermented milk, lactic acid bacteria beverage, and condensed milk.

7. The method for producing an oil or fat composition according to any one of claims 1 to 6, wherein

water is present in the range of 12 - 75 mass% in the water-containing mixture.

8. The method for producing an oil or fat composition according to any one of claims 1 to 7, wherein

heating is performed under ordinary pressure.

9. The method for producing an oil or fat composition according to any one of claims 1 to 8, wherein salt-free butter is used as the butter.
10. The method for producing an oil or fat composition according to any one of claims 1 to 9, wherein when the butter product is prepared, filtration is performed after heating.
11. The method for producing an oil or fat composition according to any one of claims 1 to 10, wherein 0.005 - 5 mass% of the butter product is contained.
12. The method for producing an oil or fat composition according to any one of claims 1 to 11, wherein the oil or fat composition is a plastic oil or fat composition.
13. The method for producing an oil or fat composition according to claim 12, wherein the plastic oil or fat composition is a water-in-oil type.