

Trial decision

Invalidation No. 2017-800013

Demandant	KIKKOMAN CORPORATION
Patent Attorney	INABA, Yoshiyuki
Patent Attorney	NAITO, Kazuhiko
Patent Attorney	YAMADA, Taku
Patent Attorney	SHIRAISHI, Makoto
Demandee	SAPPORO HOLDINGS LIMITED
Patent Attorney	HASEGAWA, Yoshiki
Patent Attorney	SHIMIZU, Yoshinori
Patent Attorney	KIDO, Hiroji
Patent Attorney	KOBIKI, Mitsuaki
Patent Attorney	BANZAI, Toshiaki

The case of trial regarding the invalidation of Japanese Patent No. 5622879, entitled "Soy milk Fermented Beverage and Production Method for the Same" between the above parties has resulted in the following trial decision:

Conclusion

The correction of the Scope of Claims of Japanese Patent No. 5622879 shall be approved as described in the corrected Scope of Claims attached to the written correction request, as for the corrected Claims [1 to 10].

The patent for the inventions recited in Claims 1 to 9 of Japanese Patent No. 5622879 shall be invalidated.

The demand for trial of Claim 10 shall be dismissed.

The costs in connection with the trial shall be borne by the Demande.

Reasons

No. 1 History of the procedures

Japanese Patent No. 5622879 of the case (hereinafter, referred to as "the Patent") was submitted on March 5, 2013 and the establishment of patent right was registered on October 3, 2014 for the inventions recited in Claims 1 and 10.

Against this, Kikkoman Co., Ltd. (hereinafter referred to as "the Demandant") demanded a trial for invalidation of the patent for the inventions recited in Claims 1 to 10 of the Patent on January 31, 2017. Subsequent procedures are as follows:

January 31, 2017	Written demand for trial
May 1, 2017	Written answer for trial
May 1, 2017	Written correction request
July 11, 2017	Notification of matters to be examined
August 15, 2017	Oral proceedings statement brief (Demandant)
August 29, 2017	Oral proceedings statement brief (Demandee)
September 12, 2017	Oral proceedings
October 24, 2017	Advance notice of trial decision
December 26, 2017	Written correction request and Petition
February 9, 2018	Written refutation of the trial case

Since the correction request was made on December 26, 2017, the correction request on May 1, 2017 shall be deemed to have been withdrawn pursuant to the provisions of Article 134-2(6) of the Patent Act.

No. 2 Demandant's allegation

1 Summary of the reasons for invalidation in the written demand for trial

The Demandant has requested a trial decision that "the patent of Japanese Patent No. 5622879 shall be invalidated, and the costs in connection with the trial shall be borne by the Demande," and alleges the following reasons for invalidation.

(1) Reason for invalidation 1 (Article 29(1)(iii) of the Patent Act)

The inventions recited in Claims 1 to 3, 5 to 7 and 10 are disclosed in Evidence

A No. 1, so that the Patent has been granted in violation of the provisions of Article 29(1)(iii) of the Patent Act. Therefore, the Patent falls under Article 123(1)(ii) of the Act and should be invalidated.

(2) Reason for invalidation 2 (Article 29(2) of the Patent Act)

(A) The inventions recited in Claims 1 to 10 could have been easily made by a person skilled in the art based on the invention disclosed in Evidence A No. 1 or on the invention disclosed in Evidence A No. 1 and the well-known arts, and on the matters disclosed in Evidence A No. 16, and thus the Patent for these inventions has been granted in violation of the provisions of Article 29(1)(ii) of the Patent Act. Therefore, the Patent falls under Article 123(1)(ii) of the Act and should be invalidated.

(B) Inventions recited in Claims 1 to 10 could have been easily made by a person skilled in the art based on the invention disclosed in Evidence A No. 2 and the matters stated in any one of Evidence A Nos. 1, 3 to 6, and 16, and thus the Patent for these inventions has been granted in violation of the provisions of Article 29(1)(ii) of the Patent Act. Therefore, the Patent falls under Article 123(1)(ii) of the Act and should be invalidated.

(C) Inventions recited in Claims 1 to 4 could have been easily made by a person skilled in the art based on the invention disclosed in Evidence A No. 3 and the matters stated in any one of Evidence A Nos. 1, 3 to 6, and 16, and thus the Patent for these inventions has been granted in violation of the provisions of Article 29(1)(ii) of the Patent Act. Therefore, the Patent falls under Article 123(1)(ii) of the Act and should be invalidated.

(D) Inventions recited in Claims 1 to 10 could have been easily made by a person skilled in the art based on the invention disclosed in Evidence A No. 4 or on Evidence A No. 4 and the well-known arts, or on the matters disclosed in Evidence A No. 16, and thus the Patent for these inventions has been granted in violation of the provisions of Article 29(1)(ii) of the Patent Act. Therefore, the Patent falls under Article 123(1)(ii) of the Act and should be invalidated.

(3) Reason for invalidation 3 (Article 36(iv)(i) of the Patent Act)

No aggregation occurs in a soymilk fermented beverage even at a pH of 4.5. Thus, in relation to the problem of providing a soymilk fermented beverage in which aggregation of protein components or the like is suppressed, the Patent specification includes no description about the technical significance of having "a pH of less than 4.5 and a viscosity at 7°C of 5.4 to 9.0 mPa·s" and of which "the amount of precipitation is less than 11 cm."

Therefore, the inventions recited in Claims 1 to 4 are not described in the Detailed Description of the Invention. The patent for these inventions has been

granted on a patent application not complying with the requirements under the provisions of Article 36(6) of the Patent Act. Therefore, the Patent falls under Article 123(1)(iv) of the Patent Act and should be invalidated.

(4) Reason for invalidation 4 (Article 36(6)(ii) of the Patent Act)

The inventions recited in Claims 1 to 4 are unclear due to uncertain technical significance of having "a pH of less than 4.5 and a viscosity at 7°C of 5.4 to 9.0 mPa·s" and of which "the amount of precipitation is less than 11 cm."

The inventions recited in Claims 3, 4, and 10 are unclear because both the wording "the beverage is obtained by fermenting soymilk with lactic acid bacteria" in Claim 3 and the wording "obtained by the production method according to any one of Claims 5 to 9" in Claim 10 state the methods for producing products that correspond to the product inventions, respectively.

Therefore, the inventions recited in Claims 1 to 4 and 10 are not described in the Detailed Description of the Invention. The patent for these inventions has been granted on a patent application not complying with the requirements under the provisions of Article 36(6) of the Patent Act. Therefore, the Patent falls under Article 123(1)(iv) of the Patent Act and should be invalidated.

2 Means of proof

Means of proof submitted by the demandant are as follows:

Evidence A No. 1: Japanese Patent Laid-Open No. H5-7458

Evidence A No. 2: Koichi Kishida, "Fermented Soymilk Product Development and Flavor," *Monthly Food Chemicals*, 2005-7, pp. 22-24

Evidence A No. 3: Japanese Patent Laid-Open No. 2011-167190

Evidence A No. 4: Japanese Patent Laid-Open No. 2004-261139

Evidence A No. 5: JINRU LIU and two others, "Addition of Pectin and Soy Soluble Polysaccharide Affects the Particle Size Distribution of Casein Suspensions Prepared from Acidified Skim Milk," *Journal of AGRICULTURAL AND FOOD CHEMISTRY*, 2006, Vol. 54, No. 17, pp. 6241-6246, and translation

Evidence A No. 6: Yasuyuki Morita, Ritsuko Kawabata, "Use of Soy Polysaccharides as Acid Milk Stabilizers", *Food and Science*, 7-2004, pp. 37-43

Evidence A No. 7: A document entitled "Reproductive Experiment 1 of Acidic Protein Foods Described in Japanese Patent Laid-Open No. H5-7458"

Evidence A No. 8: A document entitled "Reproductive Experiment 2 of Acidic Protein Foods Described in Japanese Patent Laid-Open No. H5-7458"

Evidence A No. 9: Japanese Patent Laid-Open No. 2012-175907

Evidence A No. 10: Kikkoman Group IR Report 93rd Term Financial Results Report, April 1, 2009 - March 31, 2010

Evidence A No. 11: "May 21, 2010, from Kikkoman Beverage, 'Kibun Calcium-rich Soymilk Beverage' is now on sale! News release on the Internet at <URL: <https://www.kikkoman.co.jp/corporate/news/10023.html>>

Evidence A No. 12: "January 11, 2012, New lineup of soymilk Beverage! 'Kibun soymilk beverage vanilla ice cream' and 'Kibun soymilk beverage grapefruit!'," News Release on the Internet at <URL: <http://www.kikkoman.co.jp/corporate/news/12001.html>>

Evidence A No. 13: A document entitled "Soymilk Beverage Property Confirmation Test"

Evidence A No. 14: Katsuyoshi Nishinari, "Food Hydrocolloids: Development and Applications," CMC Publishing Co., Ltd., published on May 21, 2007, pp. 330-339.

Evidence A No. 15: Edited by Keisuke Kitamura and 6 others, "All about Soybeans," Science Forum Co., Ltd., published on February 18, 2010, pp. 430-432.

Evidence A No. 16: Japanese Patent Laid-Open No. 2012-36158

Evidence A No. 17: A document entitled "Measurement on Soft Drink Beverages Containing Fermented Milk"

Evidence A No. 18: "Water-Soluble Soy Polysaccharides," F FOODS & FOOD INGREDIENTS JOURNAL, 1993, No. 155, pp. 95-99

Evidence A No. 19: Written explanation of circumstances regarding the accelerated examination on May 14, 2014 for Japanese Patent Application No. 2013-42869

Evidence A No. 20: The page entitled "Pectin" on the website of Sansho Co., Ltd. on the Internet at <URL: <http://sansho.co.jp/find/polthknr/pectin/>>

Evidence A No. 21: Japanese Patent Laid-Open No. 2010-63407

Evidence A No. 22: Japanese Patent Laid-Open No. 2015-8688

Evidence A No. 23: The page entitled "Use of water-soluble soy polysaccharides for food" on the website of Fuji Oil Co., Ltd. on the Internet at <URL: http://www.fujioil.co.jp/fujioil/healthy_soy/polysaccharides02.html>

Evidence A No. 24: Beatriz Villegas and 2 others, "Colour and viscosity of milk and soybean vanilla beverages, Instrumental and sensory measurements," Journal of the Science of Food and Agriculture, 2008, 88, pp. 397-403, abridged translation

Evidence A No. 25: Hiroatsu Matsuoka and Yoko Fuke, "Production of cheese-like product from whole soybean inoculated with *Penicillium caseicolum*," Journal of

Japanese Society for Food Science and Technology, March 1988, vol. 35, No. 3, pp. 166-172

Evidence A No. 26: The page entitled "Isoelectric point measurement of milk and soymilk" on the website of Otsuka Electronics Co., Ltd. on the Internet at <URL: <https://www.otsukael.jp/appcase/detail/caseid/20>>

There is no dispute between the parties as to the establishment of Evidence A No. 1 to Evidence A No. 26.

No. 3 The Demandee's allegation

In the written reply, for seeking for a trial decision to the effect that the trial of the case was groundless and the costs in connection with the trial shall be borne by the Demandant, the Demandee alleges that none of the above reasons for invalidation alleged by the Demandant has reasons.

1 Means of proof

Means of proof submitted by the Demandee is as follows:

Evidence B No. 1: Ministerial Ordinance on Milk and Milk products Concerning Compositional Standards, etc.

(Ministry of Health and Welfare Ordinance No. 52, December 27, 1951)

Evidence B No. 1-2: A comparative table of the revision by Ministry of Health and Welfare Ordinance No. 28 on March 12, 2013

Evidence B No. 1-3: A comparative table of the revision by Ministry of Health and Welfare Ordinance No. 87 on July 30, 2014

Evidence B No. 1-4: A comparative table of the revision by Ministry of Health and Welfare Ordinance No. 141 on December 22, 2014

Evidence B No. 1-5: A comparative table of the revision by Ministry of Health and Welfare Ordinance No. 142 on December 25, 2014

Evidence B No. 1-6: A comparative table of the revision by Ministry of Health and Welfare Ordinance No. 109 on June 8, 2016

Evidence B No. 2: Japan Agricultural Standards (JAS) for Soymilk Products (Public Notice of the Ministry of Agriculture, Forestry and Fisheries No. 1679 on July 17, 2012)

Evidence B No. 3: Standards and Criteria for Food and Food Additives, etc. (Notification of Ministry of Health and Welfare No. 370, 1959), D, each article, Soft drink beverages

Evidence B No. 4: Standards Tables of Food Composition in Japan, Fifth Revised Edition (Ministry of Education, Culture, Sports, Science and Technology)

Evidence B No. 4-2: Standards Tables of Food Composition in Japan, Fifth Revised Edition, Chapter 2 (master table) Soybeans

Evidence B No. 4-3: Standards Tables of Food Composition in Japan, Fifth Revised Edition, Chapter 2 (master table) Milk

Evidence B No. 5: The page entitled "Q: What is the difference between milk and soymilk" on the website of Meiji Co., Ltd. on the Internet at <URL: <http://qa.meiji.co.jp/print/faq/1403>>

Evidence B No. 6: Japanese Patent Laid-Open No. H7-31371

Evidence B No. 7: Japanese Patent Laid-Open No. 2012-50392

Evidence B No. 7-2: Written opinion for Japanese Patent Application No. 2010-196564

Evidence B No. 8: Japanese Patent Laid-Open No. 2008-179559

Evidence B No. 9: A document entitled "Certificate of Experimental Results"

Evidence B No. 10: the page entitled "Viscosity of liquid food" on the website of THE ENGINEER'S BOOK on the Internet at <<http://ebw.engineer.com/pdfs/7347c2faa305df9a563bdc8d9d8391b6.pdf#search=%22%E9%A3%9F%E5%93%81%E3%81%AE%E7%B2%98%E5%BA%A6%22>>

Evidence B No. 11: The news release page entitled "-Supporting women's happy days- Lactic acid bacteria soymilk fermented beverage 'Tomorrow's Beauty,' yogurt flavor/carrot mix, will be released on our mail order on April 7 (Monday)" on the website of POKKA SAPPORO Food & Beverage Ltd. on the Internet at <URL:http://www.pokkasapporo-fb.jp/company/news/release/140327_01.html>

Evidence B No. 12: Maruzen Food Comprehensive Dictionary (Popular Edition), Maruzen Co., Ltd., published on March 31, 2005, p. 851

There is no dispute between the parties as to the establishment of Evidence B No. 1 to Evidence A No. 12.

No. 4 Suitability of correction

1 Contents of correction

The request for correction by the written correction request dated December 26, 2017, requested by the Demandee, is "to request to correct the Scope of Claims in Japanese Patent No. 5622879 to the corrected Scope of Claims attached to the written correction request, as for the corrected Claims 1 to 10." The details of the correction

(hereinafter, referred to as "the correction of the case") are as follows:

(Correction A)

In Claim 1 in the Scope of Claims, "comprising pectin and soy polysaccharides" is corrected to "comprising pectin and soy polysaccharides, wherein the amount of the pectin added is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added."

(Correction B)

In Claim 5 in the Scope of Claims, "A production method for a soymilk fermented beverage wherein" is corrected to " A production method for a soymilk fermented beverage wherein , and the soymilk fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s."

(Correction C)

Delate Claim 10 from the Scope of Claims.

2 Suitability of correction the purpose of correction, presence or absence of new matter, and enlargement or alteration of the Scope of Claims

(1) Regarding the Correction A

A Purpose of correction

Correction A limits the ratio of the amount of the pectin to the amount of the soy polysaccharides added such that "the amount of the pectin added is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added," and thus aims at the restriction of the Scope of Claims stipulated in Article 134-2(1)(i) of the Patent Act.

B Addition of new matter, and enlargement or alteration of the Scope of Claims

As stated in the above A, Correction A does not substantially enlarge or alter the Scope of Claims.

Also, Correction A is based on the description "the amount of the pectin added is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added," in paragraph [0055] of the Patent specification, and thus remains within the scope of the matters stated in the Patent specification, the Scope of Claims, or the drawings attached to the application.

(2) Regarding Correction B

A Purpose of correction

Correction B restricts the soymilk fermented beverage such that "the soymilk

fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s," and thus aims at the restriction of the Scope of Claims stipulated in Article 134-2(1)(i) of the Patent Act.

B Addition of new matter, and enlargement or alteration of the Scope of Claims

As stated in the above A, Correction B remains within the scope of the matters stated in the specification, the Scope of Claims, or the drawings attached to the application and does not substantially enlarge or alter the Scope of Claims.

Furthermore, Correction B is based on the description "the soymilk fermented beverage has a pH of less than 4.5 and a viscosity at 7°C of 5.4 to 9.0 mPa·s" in paragraph [0028] of the Patent specification, and thus remains within the scope of the matters stated in the specification, the Scope of Claims, or the drawings attached to the application.

(3) Regarding Correction C

A Purpose of correction

Correction C is to delete Claim 10, and thus aims at the restriction of the Scope of Claims stipulated in Article 134-2(1)(i) of the Patent Act.

B Addition of new matter, and enlargement or alteration of the Scope of Claims

As stated in the above A, Correction C remains within the scope of the matters stated in the specification, the Scope of Claims, or the drawings attached to the application and does not substantially enlarge or alter the Scope of Claims.

3 Closing

Therefore, the correction of the case is intended for the matters listed in any of the items of Article 134-2(1) of the Patent Act and conforms to the provisions of Article 126(5) and (6) of the same Act, which are applied mutatis mutandis in Article 134-2(9) of the same Act. Thus, the correction shall be approved as the corrected Claims [1 to 10].

No. 5 Judgment about the reason for invalidation

1 Inventions recited in Claims 1 to 9

The inventions recited in Claims 1 to 9 corrected by the correction of the case (hereinafter, these inventions are respectively referred to as "Inventions 1 to 9", and collectively referred to as "the Invention") are specified by the following matters.

"[Claim 1]

"A soymilk fermented beverage having a pH of less than 4.5 and a viscosity at 7°C of 5.4 to 9.0 mPa·s and comprising pectin and soy polysaccharides, wherein the amount of the pectin added is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added (but soymilk fermented beverages in which pectin and soy polypeptides are those crosslinked with each other are excluded).

[Claim 2]

The soymilk fermented beverage according to Claim 1, wherein the amount of precipitation determined by (1) to (3) below is more than 0 cm and less than 11 cm:

(1) placing 50 ml of the soymilk fermented beverage in a 50 ml centrifuge tube and centrifuging with a swing rotor at 20°C and $1631.5 \times g$ for 10 minutes;

(2) after (1), measuring the major and minor diameters of the precipitate obtained at the bottom of the centrifuge tube; and

(3) taking a value by summing the major axis and minor axis of the precipitate measured in (2) together as the amount of precipitate.

[Claim 3]

The soymilk fermented beverage according to Claim 1 or 2, wherein the beverage is obtained by fermenting soymilk with lactic acid bacteria.

[Claim 4]

The soymilk fermented beverage according to Claim 3, wherein the lactic acid bacteria include at least one strain selected from the group consisting of *Lactobacillus brevis* SBC8803 (deposit number: FERM BP-10632), *Lactobacillus brevis* SBC8027 (deposit number: FERM BP-10630), *Lactobacillus brevis* SBC8044 (deposit number: FERM BP-10631), *Lactobacillus brevis* JCM1061, *Lactobacillus brevis* JCM1065, and *Lactobacillus brevis* JCM1170.

[Claim 5]

The production method for a soymilk fermented beverage, comprising the steps of:

fermenting soymilk with lactic acid bacteria to obtain a fermented soymilk product;

adding pectin and soy polysaccharides to the fermented soymilk product; and

adjusting the pH thereof so as to allow the soymilk fermented beverage to have a pH of less than 4.5, wherein

the adding step is a step of adding the pectin and the soy polysaccharides as a mixture or adding them separately,

the amount of the pectin added is 20 to 60% by mass with respect to the total amount

(100% by mass) of the pectin added and the soy polysaccharides added, and the soymilk fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s.

[Claim 6]

The production method according to Claim 5, wherein the amount of the pectin added is 30 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added.

[Claim 7]

The production method according to Claim 5 or 6, wherein the amount of the pectin added is 30 to 50% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added.

[Claim 8]

The production method according to one of Claims 5 to 7, wherein the lactic acid bacteria include lactic acid bacteria belonging to *Lactobacillus brevis*.

[Claim 9]

The production method according to one of Claims 5 to 8, wherein the lactic acid bacteria are one or more strains selected from the group consisting of *Lactobacillus brevis* SBC8803 (deposit number: FERM BP-10632), *Lactobacillus brevis* SBC8027 (deposit number: FERM BP-10630), *Lactobacillus brevis* SBC8044 (deposit number: FERM BP-10631), *Lactobacillus brevis* JCM1061, *Lactobacillus brevis* JCM1065, and *Lactobacillus brevis* JCM1170.

2 Description matters of Evidence A

Evidence A includes the following descriptions (a number in ○ is represented by "○ number").

(1) Described matters in Evidence A No. 1

A "[Scope of Claims]

1 An acidic protein food comprising a water-soluble soybean polysaccharide as a dispersant.

2 The acidic protein food according to Claim 1, comprising a paste selected from high methoxyl pectin, sodium carboxymethyl cellulose, and propylene glycol alginate."

B "[0001]

[Objective of the Invention]

[Industrial Application Field] The present invention relates to acidic protein foods, such as lactic acid bacteria beverages, fermented milk, liquid yogurt, acidic milk beverages, acidic frozen desserts, acidic desserts, and acidic protein beverages each made by adding tangerine juice or other fruit juice, or organic or inorganic acid to protein

beverages, such as milk and soymilk.

[0002]

[Conventional Art] Conventionally, in the production of acidic protein foods, pastes (thickeners), such as high methoxyl pectin (HM pectin), sodium carboxymethyl cellulose, and propylene glycol alginate, are commonly used for the purpose of preventing aggregation and precipitation of protein particles. However, it is difficult to completely prevent the aggregation and precipitation of protein particles with any of these pastes, and phenomena, such as phase separation and precipitation, are likely to occur. Such phenomena can be obviously suppressed by increasing the amount of the paste added to increase the viscosity, but the tendency of today's taste is that the nectar-like pasty texture tends to be disliked. Therefore, various measures have been taken to prevent precipitation, phase separation, and so on with lower viscosity, but have not yet reached a satisfactory level.

[0003]

[Problem to be solved by the invention] In view of the above circumstances, the present invention intends to provide means for preventing defects, such as aggregation, precipitation, and phase separation of protein particles in acidic protein foods, without causing a feeling of viscosity, as well as provide an acidic protein food product in which the drawbacks are prevented.

[0004]

[Means for solving the problem]

○1 Outline

The present inventors have found herein that, as a result of intensive research aimed at solving the above problems, the above problems can be solved by using water-soluble soy polysaccharides alone or by using the water-soluble soy polysaccharides in combination with a paste selected from high methoxyl pectin, sodium carboxymethyl cellulose, and propylene glycol alginate as a dispersant in acidic protein foods. Hereinafter, the conditions, definitions, and the like, which constitute the invention, will be described in separate sections.

[0005] ○2 Definitions

In the present invention, the term 'acidic protein foods' means lactic acid bacteria beverage (including live bacteria and sterilization types), fermented milk (solid or liquid), acidic milk beverages made from dairy products, acidic frozen desserts, acidic desserts, and acidic protein foods, such as tangerine juice and other fruit juices or acidic beverages made by adding organic or inorganic acids to protein beverages, such as milk and soymilk. In addition, the term 'animal and plant proteins' refers to milk, goat milk,

skim milk, and soymilk; full-fat milk powder, skim milk powder, and powdered soymilk powdered from them; sweetened milk with sugar added to them; concentrated milk prepared by concentrating them; and processed milk and fermented milk fortified with minerals, such as calcium and vitamins. The latter fermented milk refers to fermented milk obtained by sterilizing the above animal and plant proteins and then adding a lactic acid bacterium starter to ferment them. Alternatively, if desired, it may be further powdered or added with sugar or the like."

C "[0006] ○3 Water-soluble soy polysaccharides

The water-soluble soy polysaccharides (hereinafter abbreviated as SSPS) used as stabilizers in the foods of the present invention are polysaccharides composed of rhamnose, fucose, arabinose, xylose, galactose, glucose, and uronic acid and have an average molecular weight of 1 million or less determined by the ultimate viscosity method using standard pullulan (sold by Showa Denko K.K.) as a standard substance. These are produced by using okara remaining after producing tofu from soybeans or extracted chaff obtained by extracting soybean protein from defatted soybeans as a starting material, and hydrolyzing the starting material.

[0007] ○4 Production of acidic protein foods

For producing acidic protein foods, sugars, SSPS, animal and plant proteins, acids, flavors, fresh water, and if necessary, fruit juice, fruit pulp, or the like are used as raw materials. Here, a general production method for the foods is described for an acidic milk beverage. Animal and plant proteins, SSPS, acids, flavors, coloring agents, fruit juice, pulp and the like are used as raw materials. Then, the raw materials are added with water, mixed, dissolved, and if necessary homogenized and/or sterilized to obtain an acidic protein beverage."

D "[0008] ○5 Amounts of dispersant and glue used

The amount of SSPS used is typically 0.1 to 10%, preferably 0.2 to 2% of the final product, but this amount does not limit the scope of the present invention.

[0009] For working the present invention, in addition to SSPS, for example, high methoxyl pectin (HM pectin), carboxymethyl cellulose (CMC-Na), and/or propylene glycol alginate (PGA) are/is used as a glue in combination. The standard usage amounts of them are as follows, but of course they are not relevant with the scope of the invention. However, it goes without saying that the amount of the target food should not be such that it gives a pasty feeling.

[0010] HM Pectin: 0.05 to 1.0%, preferably 0.1 to 0.5% of the final product

CMC-Na and PGA: 0.05 to 1.0%, preferably 0.1 to 0.5%

The acids to be used include citric acid, tartaric acid, malic acid, lactic acid, fumaric

acid, phosphoric acid, and other edible acids. Generally, the pH of acidic protein foods is preferably in the range of 5.0 to 2.5, but in some cases it may be outside this range."

E "[0012] Example 1

An acid protein food sample (acidic milk beverage) was produced according to the following steps: ○1 add 3 parts of skim milk powder to 20 parts of water at room temperature, and stir to dissolve; ○2 add 7 parts of sugar to 20 parts of water at room temperature, and stir to dissolve; ○3 add about 20 parts of water to 0.1 to 10 parts of SSPS, stir at 80°C for 10 minutes to dissolve, and then cool to about 7°C; and ○4 after mixing each of the liquids of ○1 to ○3 of the above, add water after adjusting the pH to 4.5 and add a 50 W / W% citric acid aqueous solution while stirring at 10 to 20°C to make the total amount 100 parts."

F "[0016] Experimental Example 1

An acidic beverage sample was prepared and tested according to Experimental Example 1. However, the sample was adjusted to pH 4.0, homogenized, and sterilized at 85°C for 30 minutes. Moreover, in addition to test each of HM pectin, CMC-Na, PGA, and SSPS as a stabilizer, each combination of SSPS, HM pectin, and CMC-Na was also tested. The results are shown in Table 2 below."

(2) Invention disclosed in Evidence A No. 1

In Evidence A No. 1, with reference to the Scope of Claims and [0010], the following invention is disclosed.

"An acidic protein food comprising water-soluble soy polysaccharides as a dispersant and high methoxyl pectin as a paste, and having a pH of 2.5 to 5.0." (hereinafter, referred to as "Invention A-1")

"A production method for an acidic protein food comprising water-soluble soy polysaccharides as a dispersant, high methoxyl pectin as a paste, and having a pH of 2.5 to 5.0." (hereinafter, referred to as "Production Method Invention A-1")

(3) Description matters of Evidence A No. 2

A "The present article intends to introduce the fermentation of soymilk by lactic acid bacteria, its use in beverages and the like, and the flavors used in soymilk products." (page 22, left column, lines 9 to 7 from the bottom)

B "Table 3 shows the water type using fermented soymilk. In Table 3, the addition of minerals and amino acids to this is commonly carried out to make functional

beverages. These acidic beverages use HM pectin as a stabilizer. However, since Tables 2 and 3 give approximate amounts, the stability is checked by taking the isoelectric point of soymilk into consideration. In addition to pectin, alginic acid esters and the like are also used." (page 24, left column, lines 1 to 8)

C "

表3 発酵豆乳入りウォータータイプ処方例
清涼飲料水（大豆固形分 0.21%以上, pH3.4）

添加順	原料	添加量(%)
A	果糖ぶどう糖液糖	5
	砂糖	3
	殺菌発酵豆乳ハネピスHFST-100 (大豆固形分5.4%以上, 糖度56.5度, pH3.9 大洋香料)	4
	2%HMペクチン溶液 (GENU pectin typeJM150J三品(株))	15
	水	(72)
B	乳酸溶液 (50%W/W)	0.4
	クエン酸ナトリウム	適量
	香料(ヨーグルトエッセンス大洋香料)	0.1
	原材料合計	100

製法；原料(A)をよく混合し,完全に溶解する。40℃以下にて原料(B)を添加し,量調整を行い,酸度/pHを確認する。均質化処理。殺菌/冷却(UHTなど)後紙容器などへ充填する。

表3 発酵豆乳入りウォータータイプ処方例 Table 3 Example of water-type prescription containing fermented soymilk

清涼飲料水（大豆固形分 0.21%以上, pH3.4） Soft drink beverages (soybean solid content 0.21% or more, pH 3.4)

添加類	Additives
原料	Raw material
果糖ぶどう糖液糖	Fructose-glucose liquid sugar
砂糖	Sugar
殺菌発酵豆乳ハネピス (大豆固形分 5.4%以上, 糖度 56.5度, pH 3.9 大洋香料)	Sterilized fermented soymilk Happiness (Soybean solid content 5.4% or more, sugar content 56.5 degrees, pH 3.9, TAIYO CORPORATION)
2%HMペクチン溶液 (GENU pectin type JM150J三品(株))	2%-HM pectin solution (GENU Pectin Type JM150J, Sansho Co., Ltd.)
水	Water
乳酸溶液	Lactic acid solution

クエン酸ナトリウム	Sodium citrate
香料（ヨーグルトエッセンス大洋香料 CORPORATION)	Fragrance (yogurt essence, TAIYO CORPORATION)

原材料合計	Total of raw materials
-------	------------------------

添加量	Amount added
-----	--------------

適量	Appropriate amount
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製法；原料（A）をよく混合し、完全に溶解する。40℃以下にて原料（B）を添加し、量調整を行い、酸度／pHを確認する。均質化処理。殺菌／冷却（UHTなど）後紙容器などへ充填する。 Production method: Raw materials (A) are mixed well and completely dissolved. Raw materials (B) are added at 4°C or lower, followed by adjusting the amount and checking the acidity/pH. Homogenization is carried out. After sterilization/cooling (UHT, etc.), it is filled into a paper container.

"

(4) Invention disclosed in Evidence A No. 2

In Table 3 of Evidence A No. 2, the following invention is disclosed.

"A soft drink containing a 2% HM pectin solution and having a pH of 3.4, which is an exemplified water-type formulation containing fermented soymilk." (hereinafter, referred to as "Invention A-2")

"A production method for a soft drink beverage, which is an example of water-type prescription containing fermented soymilk having a pH of 3.4, the method comprising: sufficiently mixing fructose-glucose liquid sugar, sugar, pasteurized fermented soymilk Happiness HFST-100, a 2% HM pectin solution, and water; adding to the completely dissolved product a lactic acid solution, sodium citrate, and fragrance at 40°C or lower and adjusting the volume of the product; and subjecting the product to homogenization and sterilization/cooling." (hereinafter, referred to as " Production Method Invention A-2")

(5) Description matters of Evidence A No. 3

A "[0017]

For extending the shelf life of the fermented soymilk, an anti-precipitation stabilizer may be further added. Possible anti-precipitation stabilizers include water-

soluble soy polysaccharides, microcrystalline cellulose, and pectin, and one or more of them, preferably the water-soluble soy polysaccharides, is selected to be used. Water-soluble soy polysaccharides are plant fibers produced in the process of producing isolated soybean proteins and prevent proteins from precipitating and separating with acid. The amount of the water-soluble soy polysaccharides added is preferably adjusted to be 0.1 to 0.3% by weight with respect to 100% by weight of the total fermented soymilk beverage. However, if the amount added is less than 0.1% by weight, the problem of precipitation occurs. If the amount added exceeds 0.3% by weight, a problem occurs in flavor."

B "[0029]

Test Example 1: Flavor test of fermented soymilk with lactic acid bacteria

After adding 2 parts by weight of glucose to 100 parts by weight of soymilk produced by the above production example, as shown in Table 1 below, the soymilk was inoculated with lyophilized concentrated lactic acid bacteria. Then, the resulting mixture was placed in a glass container. The mixture was cultured at 37°C for 24 hours and then cooled to 5°C to produce lactic acid bacteria fermented soymilk. Subsequently, the fermented soymilk was subjected to the measurements of its pH, sugar content, and lactate acidity and further subjected to a sensory test. The results are shown in Table 1 below. The pH is measured by measuring the hydrogen ion concentration with a pH meter, the sugar content is measured by measuring the total solid content with a Brix Meter, and lactic acidity was measured with a pH meter using an NaOH reagent. The sensory test evaluated bean odor, acridness, and overall taste by a panel of 5 individuals. Very excellent was scored as '10,' excellent as '8,' good as '6,' defective as '4,' and extremely defective as '2.' and then the average of these values was used for evaluation."

C "[0032]

Test Example2: Test of addition effect of anti-precipitation stabilizer

For evaluating the effect of adding the anti-precipitation stabilizer, a sensory test was carried out by measuring the pH, sugar content and lactate acidity of each of fermented soymilk beverage (Example 3) prepared by diluting 20% by weight of fermented soymilk produced in Example 2, 0.2% by weight of water-soluble soy polysaccharides (Soya Five-S-ZR100) as an anti-precipitation stabilizer, 10% by weight of liquid fructose (fructose 55, Samyang Genex), and 0.05 to 0.20% by weight of fragrance yogurt flavor (Yogurt FLAVOR-1, LOTTE SAMKANG CO., LTD.) with water to 100% by weight, followed by being subjected to sterilization (135°C, 40

seconds); the soymilk fermented beverage of Comparative Example 8 prepared in the same manner as in the above Example 3, except that gum arabic (GUM ARABIC POWDER, C. N. I.) was added instead of water-soluble soy polysaccharides; and the soymilk fermented beverage of Comparative Example 9 prepared in the same manner as in the above Example 3, except that no anti-precipitation stabilizer was added. The evaluation was carried out by a panel of 5 individuals and scored very excellent as '10,' excellent as '8,' good as '6,' defective as '4,' and extremely defective as '2' and then the average of these values was used for evaluation. The results are shown in Table 2 below.

[0033]

【表2】

区分	実施例3	比較例8	比較例9
pH	4.1	4.2	4.1
糖度 (Brix)	12.0	12.0	11.0
乳酸酸度 (重量%)	0.19	0.18	0.19
豆臭	8.6	8.5	8.5
えぐみ	8.5	8.3	8.3
その他	風味及び性状良好	粘度増加	性状不良
総合的評価	9.1	7.5	5.0

【表2】

[Table 2]

区分	Classification
糖度	Sugar content
乳酸酸度 (重量%)	Lactic acidity (% by weight)
豆臭	Bean odor
えぐみ	Acridness
その他	Other
総合評価	Comprehensive evaluation
実施例3	Example 3
風味及び性状良好	Good flavor and properties
比較例8	Comparative Example 8
粘度増加	Increased viscosity
比較例9	Comparative Example 9
性状不良	Poor properties

[0034]

As shown in Table 2 above, Example 3 in which water-soluble soy polysaccharides were used as the anti-precipitation stabilizer had almost no difference

in flavor as compared with Comparative Example 9, but the properties were good because of no phase separation due to protein precipitation. In the case of Comparative Example 8 in which gum arabic, which is a kind of gum, was added as an anti-precipitation stabilizer, the overall evaluation of the product was poor due to the increased viscosity of soymilk fermented beverage.

[0035]

Test Example3: Microbial stability test by sterilization and aseptic filling

A sensory test was carried out on each of fermented soymilk beverage (Example 4) prepared by aseptically filling the sterile soymilk-fermented lactic acid bacteria beverages of the above Example 3 above in a PET container using a sterile filling device (Example 4); and fermented soymilk beverage (Comparative Example 10) prepared by diluting 20% by weight of fermented soymilk produced in Example 2, 0.2% by weight of water-soluble soy polysaccharides (Soya Five-S-ZR100) as an anti-precipitation stabilizer, and 0.05 to 0.20% by weight of fragrance yogurt flavor (Yogurt FLAVOR-1, LOTTE SAMKANG CO., LTD.) with water to 100% by weight, followed by being subjected to hot-filling (sterilization temperature 135°C, sterilization time 30 seconds, and filling temperature 88°C), immediately after production and one year after production.

The evaluation was carried out by a panel of 5 individuals and scored very excellent as '10,' excellent as '8,' good as '6,' defective as '4,' and extremely defective as '2' and then the average of these values was used for evaluation. In addition, the microbial stability evaluation was carried out by the microbial test method according to the Korea Food Code using general bacteria and coliform bacteria test instruments. The results of the sensory test and microbial stability evaluation are shown in Table 3 below.

[0036]

【表3】

区分	実施例4-1	実施例4-2 (1年経過)	比較例10-1	比較例10-2 (1年経過)
pH	4.2	4.1	4.2	3.7
糖度 (Brix)	12.0	12.0	12.0	10.0
乳酸酸度 (重量%)	0.20	0.20	0.20	0.30
豆臭	8.5	8.4	7.9	7.8
えぐみ	8.3	8.3	8.1	8.0
その他	風味良好	風味良好	風味良好	酸敗/悪臭
総合的な味	9.0	8.7	8.8	4.1
微生物	検出なし	検出なし	検出なし	多量検出

【表3】

[Table 3]

区分

Classification

糖度	Sugar content
乳酸酸度（重量％）	Lactate acidity (weight%)
豆臭	Bean odor
えぐみ	Acridness
その他	Others
総合的な味	Overall taste
微生物	Microorganisms
実施例 4 - 1	Example 4-1
風味良好	Good flavor
検出なし	No detection
実施例 4 - 2（1年経過）	Example 4-2 (1 year passed)
比較例 10 - 1	Comparative Example 10-1
比較例 10 - 2（1年経過）	Comparative Example 10-2 (1 year passed)
酸敗／悪臭	Rancidity/stink
多量検出	Bulk detection

[0037]

From the results in the above Table 3, it can be seen that a considerable number of microorganisms have grown in the hot filling product after one year has passed. As a result of decomposing sugars and the like by the proliferated microorganisms to generate acid, there are problems that the sugar content and pH are lowered, the lactate acidity is increased, and the product is altered. However, it can be seen that the aseptic filling product effectively suppressed the thermophilic acidophilic bacteria (TAB) remaining in the soymilk.

Therefore, for long-term storage of soymilk-fermented lactic acid bacteria beverages, it was confirmed that sterilization and aseptic filling in the container are more effective than heat filling."

(6) Invention disclosed in Evidence A No. 3

In Evidence A No. 3, the following inventions are described with reference to Examples 3, 4-1, and 4-2.

"A soymilk-fermented lactic acid bacteria beverage comprising water-soluble soy polysaccharides as an anti-precipitation stabilizer and having a pH of 4.1 or 4.2." (hereinafter, referred to as "Invention A-3)

" A production method for a fermented soymilk beverage, comprising: adding 2 parts by

weight of glucose to 100 parts by weight of soymilk, followed by inoculating concentrated lactic acid bacteria; incubating the mixture at 37°C for 24 hours, followed by cooling; and diluting the resulting lactic acid bacteria fermented soymilk, water-soluble soy polysaccharides, liquid fructose, and fragrant yogurt flavor in water, followed by sterilization." (hereinafter, referred to as "Production Method Invention A-3")

(7) Evidence A No. 4

A "[0001]

[Field of the Invention]

The present invention relates to an acidic soymilk beverage, and more particularly to an acidic soymilk beverage and a production method for the same, the beverage having improved bitterness and improved astringency peculiar to soybeans occurring in the acidic region of soymilk beverage, being sufficiently satisfactory in terms of taste, and having excellent stability."

B "[0016]

Specific soymilk beverages include: acidic soymilk obtained by adding acidulants such as fruit juice, organic acid, and inorganic acid to soymilk obtained from soybeans, defatted soybeans, flake soybeans, and the like by the conventional methods, and dispersion solutions obtained by dispersing soybean proteins, such as soybean flour, concentrated soybean protein, and isolated soybean protein, in water (hereinafter, referred to as "soymilk, etc."), or fermented soymilk obtained by acting microorganisms on the soymilk, etc. In particular, fermented soymilk obtained by the action of microorganisms is preferable because of having an effect of improving the taste of soymilk."

C "[0026]

Furthermore, the acidic soymilk beverage of the present invention contains the above stabilizer in combination with water-soluble soy polysaccharides, or preferably contains pectin in combination with water-soluble soy polysaccharides. It is thus possible to synergistically improve the bitterness and astringency peculiar to soybeans generated in the acidic region, and to obtain an acidic soymilk beverage having excellent stability and satisfying the taste. Any of the water-soluble soy polysaccharides may be used without particular limitation, but a sugar composed of rhamnose, fucose, arabinose, xylose, galactose, glucose, galacturonic acid, and the like is preferable. When using the water-soluble soy polysaccharides in combination, it is

preferable to add the water-soluble soy polysaccharides in a percentage of 0.2 to 0.6% by mass with respect to the final product. If the amount of water-soluble soy polysaccharides added is 0.1% by mass or less, the effect of synergistically improving the bitterness and astringency peculiar to soybeans cannot be obtained. If it is 0.7% by mass or more, it is not preferable because the viscosity is strong and the flavor is not good."

(8) Evidence A No. 6

A "(3) Synergistic effect of soy polysaccharides and HM pectin

It was found that the use of soy polysaccharides in combination with pectin synergistically increased the stability of sour milk beverages and that beverages containing milk fat suppressed the formation of rings." (page 39, columns 3 to 4)

(9) Evidence A No. 16

A "[0008]

Incidentally, *Lactobacillus brevis* bacterial strain SBC8803 has been deposited to the independent administrative agency, National Institute of Advanced Industrial Science and Technology, International Patent Organism Depository, Tsukuba Central 6, 1-1, Higashi 1-Chome, Tsukuba-shi, Ibaraki-ken, 305-8566, Japan) under deposit number: FERM BP-10632) on June 28, 2006.

[0009]

Lactobacillus brevis is a species of lactic acid bacterium that has been used in fermented foods for a long time, and its safety to the living body has been established. Thus, the triglyceride reducing agent of the present invention is highly safe for the living body and can be continuously ingested for a long period of time. Therefore, it can be used as a pharmaceutical ingredient, a food or drink component, a food or drink additive, or the like."

3 Provided that Evidence A No. 1 is main cited reference

3-1 Regarding Invention 1

(1) Comparison between Invention 1 and Invention A-1

The terms "water-soluble soy polysaccharides" and "high methoxyl pectin" in Invention A-1-1 correspond to the terms "soy polysaccharides" and "pectin" in Invention 1, respectively.

Furthermore, considering [0009] and [0016] of Evidence A No. 1, there is described that pectin and soy polysaccharides are those to which water is added, stirred, and

dissolved, but not described that pectin and soy polysaccharides are crosslinked. Therefore, "acidic protein foods" of Invention A-1 and "soymilk fermented beverage" of Invention 1 are common as far as they are foods (but foods in which pectin and soy polysaccharides are cross-linked between pectin and soy polysaccharides are excluded).

Then, the corresponding and different features between Invention 1 and Invention A-1 are as follows:

<Corresponding Feature 1>

A food comprising pectin and soy polysaccharides (but foods in which pectin and soy polysaccharides are cross-linked between pectin and soy polysaccharides are excluded).

<Different Feature 1-1>

The pH is less than 4.5 in Invention 1, whereas the pH is 2.5 to 5.0 in Invention A-1.

<Different Feature 1-2>

The soymilk fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s in Invention 1, whereas the viscosity is unknown in Invention A-1.

<Different Feature 1-3>

The amount of the pectin added in Invention 1 is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added, whereas Invention A-1 has an unknown ratio of pectin to soy polysaccharides.

<Different Feature 1-4>

Foods are soymilk fermented beverages in Invention 1, whereas foods are acidic protein foods in Invention A-1.

(2) Judgment by the body

<Regarding Different Feature 1-1>

Regarding pH, Invention A-1 is an acidic protein food in the first place and has a pH of 2.5 to 5.0. In addition, Evidence A No. 1 describes acidic milk beverages having pH 4.5 and 4.0 ([0012] and [0016]) and describes that "As the acids, citric acid, tartaric acid, malic acid, lactic acid, fumaric acid, phosphoric acid, and other edible acids are used." ([0010]). Taking these descriptions into consideration, for the acidic protein food of Invention A-1, setting the pH to less than 4.5 could be appropriately performed by a person skilled in the art based on the request on the design by adding an

appropriate amount of acids to adjust the pH from the viewpoint of taste and storage stability.

Here, the Demandee argues that lowering the pH to less than 4.5 could not be appropriately performed by a person skilled in the art based on the request on the design because, a pH of less than 4.5 attains a state that, even if the percentages of pectin and soy polysaccharides are slightly changed, the viscosity can be maintained at a substantially constant level without causing a sharp decrease in viscosity, a good dispersed state can be maintained, thereby suppressing aggregation of protein components or the like as well as suppressing sourness and providing excellent aftertaste. whereas a pH of 4.5 or more cannot attain such advantageous effects (the petition, page 10, line 12 to page 11, line 12).

However, the viscosity was confirmed only at pH 4.2, 4.3, 4.5, and 4.7 by changing the ratio of pectin and soy polysaccharides. In addition, [0074] describes that "When the percentage of pectin in the mixture of pectin and soy polysaccharides is in the range of 90% by mass to 20% by mass (samples No. 3 to No. 10), it is recognized that a sharp decrease in viscosity was observed in a soymilk fermented beverage having a pH of 4.5 or more compared with one having a pH of less than 4.5 (particularly, see FIG. 2). On the other hand, when the pH was less than 4.5, the viscosity was almost constant as long as the ratio of pectin was within the above range (Table 3 and FIG. 2)." Considering also FIG. 2, when the soymilk fermented beverage has a pH of 4.2 or 4.3, it is recognized that the viscosity is maintained high as compared with one having a pH of 4.5 or 4.7. From this, the effect that the viscosity can be maintained almost constant without causing a sharp decrease in viscosity can be observed even if the ratio of pectin and soy polysaccharides is slightly changed at pH 4.2 or 4.3, but not observed at a pH of 4.5. Therefore, it cannot be said that it is effective in the range of pH 4.5 to 4.3.

In addition, the sour flavor and the remaining sourness were confirmed by sensory evaluation only at pH 4.3. Even if the common general technical knowledge is taken into consideration, it cannot be said that it is effective at a pH of 4.5 to 4.3. Thus, it cannot be recognized that, as the Demandee alleges, a favorable effect is obtained when the pH is less than 4.5, for example pH 4.4, as compared with one having a pH of 4.5 or more.

Therefore, the Demandee's allegation cannot be accepted.

<Regarding Different Feature 1-2>

Evidence A No. 10 describes that "Calcium-rich Soymilk Beverage" and "Soymilk beverage, Strawberry" were sold by Kikkoman Group before filing the Patent

application. Evidence A No. 11 describes that "Calcium-rich Soymilk Beverage" was sold by Kikkoman Beverage Co., Ltd. before filing the Patent application. Evidence A No. 12 describes that "Soymilk Beverage, Grapefruit" was sold by Kikkoman Beverage Co., Ltd. before filing the Patent application. Evidence A No. 13 ("Soymilk Beverage Property Confirmation Test" dated March 3, 2015) describes the results of measuring the viscosity of soymilk beverage by Kikkoman Soyfoods Company, Beverage Division, Product Technology Development Department, and describes that the viscosity at 7°C is 7.0 mPa·s for "soymilk beverage, Grapefruit (manufacturing date: February 24, 2015, 7: 56 to 7: 57)", 8.5 mPa·s for "soymilk beverage, Strawberry (manufacturing date: February 17, 2015 22: 08 to 22: 09)," and 7.8 mPa·s for "Calcium-rich Soymilk Beverage (manufacturing date: February 3, 2015 12:48 to 12: 49)."

In addition, Evidence A No. 17 ("Measurement of soft drinks containing fermented milk" dated September 9, 2016) describes the results of measuring the viscosity of soft drinks containing fermented milk marketed by Kikkoman Soyfoods Company, Beverage Division, Product Technology Development Department, and describes that the commercially available soft drink beverages containing fermented milk have a viscosity of 5.7 mPa·s at 7°C. Based on the above, a viscosity of 5.4 to 9.0 mPa·s at 7°C is recognized as one in a normal range of beverages accepted by consumers. It can be said that such a fact would not be changed before and after filing of the Patent application.

Furthermore, Evidence B No. 10 illustrates various Viscosity of liquid food under the title of "Viscosity of liquid food". According to Evidence B No. 10, the beverage orange juice has a viscosity of about 5 to 30 mPa·s at 20°C. Therefore, it is recognized that a beverage viscosity of 5.4 to 9.0 mPa·s is in a normal range even if the measurement temperature is different.

Then, considering the significance of specifying the viscosity of Invention 1 at 7°C as 5.4 to 9.0 mPa·s, it is nothing more than described in the Patent specification as follows: "[soymilk fermented beverage] The soymilk fermented beverage has a pH of less than 4.5 and a viscosity at 7°C of 5.4 to 9.0 mPa·s." ([0028]); "The viscosity of soymilk fermented beverage is defined as described above. The viscosity is preferably 5.9 mPa·s or more, more preferably 6.4 mPa·s or more, and even more preferably 6.9 mPa·s or more. In addition, the viscosity is preferably 8.5 mPa·s or less, and more preferably 8.0 mPa·s or less." ([0029]), and "As is clear from the comparison with sample No. 1 to which the mixture of pectin and soy polysaccharides was not added, the viscosity was increased by adding the mixture of pectin and soy polysaccharides (Table 3 and FIG. 2)." ([0074]). Thus, no significance can be found beyond simply

specifying the viscosity as a result of the addition of pectin and soy polysaccharides. From Tables 3 and 4, in the case of pH 4.3, agglomeration occurs and the amount of precipitation is large outside the viscosity range of 5.4 to 9.0 mPa·s, but in the case of pH 4.5, the amount of precipitation is small even when the viscosity is outside the range of 5.4 to 9.0 mPa·s. Therefore, the small amount of precipitation is mainly due to the addition of pectin and soy polysaccharides in appropriate amounts, not the effect of setting the viscosity within the relevant range.

On the other hand, Evidence A No. 1 describes that "intends to provide means for preventing defects, such as aggregation, precipitation, and phase separation of protein particles in acidic protein foods, without causing a feeling of viscosity as well as provide an acidic protein food product in which the drawbacks are prevented." ([0003]), corresponding to the description of a beverage that does not provides a feeling of viscosity, or a beverage having a low viscosity. Therefore, it is recognized that there is a motivation to set the viscosity low while adding water-soluble soy polysaccharides and high methoxyl pectin to prevent aggregation and precipitation. Therefore, making a beverage as a soymilk fermented beverage having a viscosity at 7°C of 5.4 to 9.0 mPa·s, which is a relatively low viscosity in the viscosity range adopted as the viscosity of the beverage and is a normal range as a beverage accepted by consumers, is a design matter that could be appropriately determined by a person skilled in the art.

Therefore, a person skilled in the art could easily conceive of setting the viscosity at 7°C to 5.4 to 9.0 mPa·s in Invention A-1.

Here, the Demandeé alleges that it cannot be recognized that, since the measurement targets in Evidence A No. 13 and Evidence A No. 17 were produced after the filing of the Patent application (and two to three years later thereafter), and would go through some changes in an ordinary manner, it cannot be recognized that, before filing the Patent application, "a viscosity of 5.4 to 9.0 mPa·s at 7°C can be said as one in a normal range of beverages accepted by consumers," and also, since no soymilk fermented beverage is disclosed in Evidence A Nos. 10 to 13 and Evidence A No. 17, the viscosity of the soymilk fermented beverage cannot be recognized (the petition, page 11, line 13 to page 12, line 10).

However, from Evidence A Nos. 10 to 12, the measurement target of Evidence A No. 13 is considered to be sold before filing of the Patent application and to be unlikely that the viscosity thereof was significantly changed by the time of measurement in Evidence A No. 13 and it is also considered that soymilk fermented beverages are beverages and have viscosities as those of being consumed by consumers, which are not significantly different from those of soymilk beverages and soft drinks containing

fermented milk. As stated above, setting the viscosity of a beverage at 7°C to about 5.4 to 9.0 mPa·s is a design matter that could be appropriately determined by a person skilled in the art.

<Regarding Different Feature 1-3>

Evidence A No. 1 describes the use of HM pectin and water-soluble soy polysaccharides for the purpose of preventing aggregation and precipitation of protein particles in acidic protein foods ([0002] and [0006]). The amounts of HM pectin and soy polysaccharides added are design matters to be set depending on the purpose. Evidence A No. 1 describes that, as a preferable range, the amount of HM pectin is set to 0.1 to 0.5% and the amount of water-soluble soy polysaccharides is 0.2 to 2% with respect to the final product ([0008] and [0010]). Here, when HM pectin is 0.1% and water-soluble soy polysaccharides are 0.2%, the amount of pectin added is 33.3% by mass with respect to the total amount (100% by mass) of pectin and soy polysaccharides added. When HM pectin is 0.5% and water-soluble soy polysaccharides is 2%, the amount of pectin added is 20% with respect to the total amount (100% by mass) of pectin and soy polysaccharides added. In addition, Experimental Example 2 describes that HM pectin and water-soluble soy polysaccharides are set to 0.3% and 0.1%, 0.2% and 0.2%, and 0.1% and 0.3%. (Table 2). The amounts of pectin added relative to the total amounts (100% by mass) of the pectin and soy polysaccharides added are 75% by mass, 50% by mass, and 25% by mass, respectively. Therefore, it is within the range assumed in Invention A-1 that the amount of pectin added is 20 to 60% by mass relative to the total amount (100% by mass) of pectin and soy polysaccharides added.

Therefore, in Invention A-1, a person skilled in the art could have easily conceived of setting the amount of pectin added to be the same as that of Invention 1 relating to Different Feature 1-3 in consideration of the above descriptions in Evidence A No. 1.

Here, the Demandee alleges that, from Evidence A No. 1, the idea of controlling the amount of pectin added relative to the total amount of pectin and soy polysaccharides added cannot be read; and thus it cannot be said that the configuration of Different Feature 1-3 can be easily adopted (the petition, page 13, lines 2 to 24).

However, Evidence A No. 1 describes the amount of HM pectin and soy polysaccharides added as stated above. Thus, it can be said that the amount of pectin added relative to the total amount of pectin and soy polysaccharides added is specified in various ways. In this respect, therefore, it can be said that the amount of pectin added is controlled with respect to the total amount of pectin and soy polysaccharides

added.

Furthermore, the Demandee alleges that having the invention-specific matters relating to Different Features 1 to 3 has the effects of "suppressing sourness and providing excellent aftertaste" (the petition, page 13, lines 3 to 2 from the bottom).

However, the sour flavor and the remaining sourness were confirmed by sensory evaluation only at pH 4.3. In general, the lower the pH, the stronger the sourness. Therefore, the effects alleged by Demandee cannot be observed in the entire range of pH less than 4.5, and cannot be said to be the effects of Invention 1.

Therefore, the above Demandee's allegation cannot be accepted.

<Regarding Different Feature 1-4>

[0005] of Exhibit A No. 1 describes that "The term 'animal and plant proteins' refers to milk, goat milk, skim milk, and soymilk; full-fat milk powder, skim milk powder, and powdered soymilk powdered from them; sweetened milk with sugar added to them; concentrated milk prepared by concentrating them; and processed milk and fermented milk fortified with minerals, such as calcium and vitamins. Here, the latter fermented milk refers to fermented milk obtained by sterilizing the above animal and plant proteins and then adding a lactic acid bacterium starter to ferment them. Alternatively, if desired, it may be further powdered or added with sugar or the like." (The trial decision's note: Underlines were added by the body, the same shall apply hereinafter). Thus, it can be recognized that "animal and plant proteins" include "soymilk" and "fermented milk" obtained by fermenting soymilk. Then, [0007] describes that "For producing acidic protein foods, sugars, SSPS, animal and plant proteins, acids, flavors, fresh water, and if necessary, fruit juice, fruit pulp, or the like are used as raw materials. Here, a general production method for the foods is described for an acidic milk beverage. Animal and plant proteins, SSPS, acids, flavors, coloring agents, fruit juice, pulp and the like are used as raw materials. Then, the raw materials are added with water, mixed, dissolved, and if necessary homogenized and/or sterilized to obtain an acidic protein beverage." Therefore it can be recognized that "acidic protein foods" and "acidic protein beverages" are made from "animal and plant proteins", for example, fermented milk obtained by fermenting soymilk.

Therefore, it can be said that Evidence A No. 1 suggests acidic protein beverages made from fermented milk obtained by fermenting soymilk; i.e., soymilk fermented beverages, as acidic protein foods. According to the suggestion, a person skilled in the art could have easily conceived of specifically making the acidic protein foods of Invention A-1 into soymilk fermented beverages.

Here, the Demandee alleges that Evidence A No. 1 does not list soymilk fermented beverages as substantially acidic protein foods. However, Invention A-1 is intended for acidic protein foods in general, and thus there is no reason to recognize that soymilk fermented beverages are excluded. As stated above, since it can be said that soymilk fermented beverages are suggested as acidic protein foods from the descriptions in [0005] and [0007], the above Demandee's allegation cannot be adopted.

<Regarding the effects of Invention 1>

Invention A-1 uses HM pectin and water-soluble soy polysaccharides for the purpose of preventing aggregation and precipitation of protein particles in acidic protein foods (Evidence A No. 1, [0002] to [0004] and [0006]), and thus the effect of Invention 1, "suppressing aggregation of protein components or the like," would be within the range easily conceived by a person skilled in the art from Invention A-1 and the matters described in Evidence A No. 1 and is not remarkable.

Here, the Demandee alleges the effect "the addition of a mixture of pectin and soy polysaccharides allows the increased viscosity to be maintained at a nearly constant viscosity without a sharp drop in viscosity even when the percentages of pectin and soy polysaccharides are slightly changed."

However, the above effect is still hardly recognized because the amounts of pectin and soy polysaccharides added are determined at the beverage design stage and do not fluctuate accidentally, and thus, even if a change in ratio between them results in a small decrease in viscosity, the effect of the change on the beverage is hardly recognized, and also, even if the above effect alleged by the Demandee is to increase the flexibility of designing the percentages of pectin and soy polysaccharides, the flexibility of designing pH is reduced instead.

In addition, the Demandee alleges that, even though the amounts of pectin and soy polysaccharides added are determined at the beverage design stage, it can be said to be effects in production methods capable of producing soymilk fermented beverages each having constant viscosity regardless of the variation from lot to lot and it can also be said that the soymilk fermented beverages are capable of absorbing variations caused by these production methods (the petition, page 14, lines 11 to 15). However, the above Demandee's allegation cannot be adopted because a variation in viscosity of the beverage is hardly said to greatly depend on the degrees of variations in the amounts of pectin and soy polysaccharides added from lot to lot.

Also, as considered in the above <Regarding Different Feature 1-1>, even if the effect of maintaining an almost constant viscosity is recognized without causing a sharp

decrease in viscosity when the percentages of pectin and soy polysaccharides are slightly changed at pH 4.2 or 4.3, such an effect cannot be recognized at pH 4.5. Therefore, it cannot be said that an effect is exerted at pH in the range of 4.5 to 4.3 and is the effect of Invention 1.

Therefore, the above Demandee's allegation cannot be accepted.

(3) Summary

Therefore, Invention 1 could have been easily invented by a person skilled in the art based on Invention A-1 and the matters described in Evidence A No. 1.

3-2 Regarding Invention 2

(1) Comparison between Invention 2 and Invention A-1

Invention 2 and Invention A-1 correspond to each other in terms of <Corresponding Feature 1> in the above 3-1(1) and are different from each other in terms of <Different Feature 1-1> to <Different Feature 1-4>
<Different Feature 1-5>

In Invention 2, the amount of precipitation, which is a value obtained by "(1) placing 50 ml of the soymilk fermented beverage in a 50-ml centrifuge tube and centrifuging with a swing rotor at 20°C and 1631.5 × g for 10 minutes; (2) after (1), measuring the major and minor diameters of the precipitate obtained at the bottom of the centrifuge tube; and (3) taking a value by summing the major axis and minor axis of the precipitate measured in (2) together" is more than 0 cm and less than 11 cm, whereas Invention A-1 has an unknown amount of precipitation.

(2) Judgment by the body

<Regarding Different Feature 1-1 to Different Feature 1-4>

The same can be said for Different Feature 1-1 to Different Feature 1-4 as in the above 3-1 (2).

<Regarding Different Feature 1-5>

The Patent specification, describes that "The present invention intends to provide a soymilk fermented beverage in which aggregation of protein components or the like is suppressed" in [0007], the range of the amount of precipitation in Invention 2 in [0011], and "aggregation of protein components or the like is suppressed as long as the ratio of pectin is within the above range" in [0012]. Considering the concrete descriptions about the amount of precipitation in a soymilk fermented beverage, the invention-specific matters of Invention 2 relating to Different Feature 1-5 can be recognized as

one that identifies a soymilk fermented beverage in which aggregation of protein components or the like is suppressed, which is the problem of the Invention, in terms of the amount of precipitation determined by a given procedure.

On the other hand, Invention A-1 also contains water-soluble soy polysaccharides and high methoxyl pectin to prevent aggregation and precipitation of protein particles. Therefore, a person skilled in the art could have easily adjusted the contents of them to prevent aggregation and precipitation, and there is no recognized difficulty in appropriately adjusting the degrees thereof so as to satisfy the invention-specific matter of Invention 2 relating to Different Feature 1-5.

(3) Summary

Therefore, Invention 2 could have been easily invented by a person skilled in the art based on Invention A-1 and the matters described in Evidence A No. 1.

3-3 Regarding Invention 3

(1) Comparison between Invention 3 and Invention A-1

Invention 3 and Invention A-1 correspond to each other in terms of <Corresponding Feature 1> in the above 3-1(1) and are different from each other in terms of <Different Feature 1-1> to <Different Feature 1-4>.

<Different Feature 1-6>

"The beverage is obtained by fermenting soymilk with lactic acid bacteria" in Invention 3, whereas Invention A-1 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 1-1 to Different Feature 1-4>

The same can be said for Different Feature 1-1 to Different Feature 1-4 as in the above 3-1 (2).

<Regarding Different Feature 1-6>

[0005] of Exhibit A No. 1 describes that fermented milk is obtained by using lactic acid bacteria for animal and plant proteins.

In Invention A-1, therefore, a person skilled in the art could have easily conceived of fermenting soymilk with lactic acid bacteria to obtain a soymilk fermented beverage.

(3) Summary

Therefore, Invention 3 could have been easily invented by a person skilled in the art based on Invention A-1 and the matters described in Evidence A No. 1.

3-4 Regarding Invention 4

(1) Comparison between Invention 4 and Invention A-1

Invention 4 and Invention A-1 correspond to each other in terms of <Corresponding Feature 1> in the above 3-1(1) and are different from each other in terms of <Different Feature 1-1> to <Different Feature 1-4>, <Different Feature 1-6>, and the following features.

<Different Feature 1-7>

Invention 4 is specified such that "the lactic acid bacteria include at least one strain selected from the group consisting of Lactobacillus brevis SBC8803 (deposit number: FERM BP-10632), Lactobacillus brevis SBC8027 (deposit number: FERM BP-10630), Lactobacillus brevis SBC8044 (deposit number: FERM BP-10631), Lactobacillus brevis JCM1061, Lactobacillus brevis JCM1065, and Lactobacillus brevis JCM1170," whereas Invention A-1 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 1-1 to Different Feature 1-4 and Different Feature 1-6>

The same can be said for Different Feature 1-1 to Different Feature 1-4 as in the above 3-1 (2) and 3-3(2).

<Regarding Different Feature 1-7>

As described in Evidence A No. 16 (the above 2(9)), Lactobacillus brevis SBC8803, which is lactic acid bacteria specified in Invention 4, has been deposited to the independent administrative agency, National Institute of Advanced Industrial Science and Technology, International. Patent Organism Depository on June 28, 2006 before filing of the Patent application. In addition, since Lactobacillus brevis has been used in fermented foods for a long time, there is no recognized difficulty in using the above Lactobacillus brevis SBC8803 in fermented foods.

Therefore, a person skilled in the art could have easily conceive of providing the use of lactic acid bacteria described in the above Evidence A No. 16 for obtaining a soymilk fermented beverage in Invention A-1 as a specific matter of Invention 4 for Different Feature 1-7.

(3) Summary

Therefore, Invention 4 could have been easily invented by a person skilled in the

art based on Invention A-1 and the matters described in Evidence Nos. 1 and 16.

3-5 Regarding Invention 5

(1) Comparison between Invention 5 and Production Method Invention A-1

"Water-soluble soy polysaccharides" and "high methoxyl pectin" in Production Method Invention A-1 correspond to "soy polysaccharides" and "pectin" in Invention 5, respectively.

The "acidic protein food" in Production Method Invention A-1 and the "soymilk fermented beverage" in Invention 5 are common in terms of foods. The "acidic protein food" before "comprising water-soluble soy polysaccharides as a dispersant and high methoxyl pectin as a paste" in Production Method Invention A-1 and the "fermented soymilk product" in Invention 5 are common as far as they are "food product materials."

Furthermore, since Production Method Invention A-1 includes "comprising water-soluble soy polysaccharides as a dispersant and high methoxyl pectin as a paste," it is clear to add water-soluble soy polysaccharides and high methoxyl pectin to food product materials, and an embodiment thereof is either adding as a mixture or adding separately. Therefore, the addition corresponds to the steps of "adding pectin and soy polysaccharides to the fermented soymilk product" and "adding the pectin and the soy polysaccharides as a mixture or adding them separately" in Invention 5.

An embodiment of having "a pH of 2.5 to 5.0" in Production Method Invention A-1 is to adjust the pH with acids in view of [0010] and is thus common with "adjusting the pH thereof so as to allow the soymilk fermented beverage to have a pH of less than 4.5" in Invention 5 as far as "adjusting the pH."

Then, the corresponding and different features between Invention 5 and Production Method Invention A-1 are as follows:

<Corresponding Feature 2>

A production method for a food comprising the steps of:
adding pectin and soy polysaccharides to food product materials; and
adjusting the pH of the food product, wherein
the adding step is a step of adding the pectin and the soy polysaccharides as a mixture or adding them separately.

<Different Feature 1-8>

The pH is less than 4.5 in Invention 5, whereas the pH is 2.5 to 5.0 in Production

Method Invention A-1.

<Different Feature 1-9>

Invention 5 includes the steps of "fermenting soymilk with lactic acid bacteria to obtain a fermented soymilk product" and adding pectin and soy polysaccharides "to the fermented soymilk product," whereas in Production Method Invention A-1 there is no step of obtaining a fermented soymilk product and a food product is an "acidic protein food."

<Different Feature 1-10>

The soymilk fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s in Invention 5, whereas the viscosity is unknown in Production Method Invention A-1.

<Different Feature 1-11>

"The amount of the pectin added is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added" in Invention 5, whereas the percentages of pectin and soy polysaccharides are unknown in Production Method Invention A-1.

(2) Judgment by the body

<Regarding Different Feature 1-8, Different Feature 1-10, and Different Feature 1-11>

Different Feature 1-8, Different Feature 1-10, and Different Feature 1-11 are substantially the same as Different Feature 1-1 to Different Feature 1-3 in the above 3-1(1). Thus, a person skilled in the art could have easily conceived for the same reason as that of <Regarding Different Feature 1-1 to Different Feature 1-3> in the above 3-1(2).

<Regarding Different Feature 1-9>

As considered in Different Feature 1-4 in the above 3-1(1), it can be said that Evidence A No. 1 suggests a soymilk fermented beverage made from fermented milk obtained by fermenting soymilk. Furthermore, [0005] of Evidence A No. 1 describes that fermentation is performed using lactic acid bacteria.

Therefore, a person skilled in the art could have easily conceived of specifically providing an acid protein food in Production Method Invention A-1 as a "soymilk fermented beverage" and obtaining a fermented soymilk product as a raw material by "fermenting soymilk with lactic acid bacteria to obtain a fermented soymilk product," and adding pectin and soy polysaccharides to the fermented soymilk product.

<Regarding the effects of Invention 5>

Production Method Invention A-1 uses HM pectin and water-soluble soy

polysaccharides for the purpose of preventing aggregation and precipitation of protein particles in acidic protein foods (Evidence A No. 1 [0002]-[0004] and [0006]). Therefore, the effect of "suppressing aggregation of protein components or the like" of Invention 5 is within the range easily conceived by a person skilled in the art from Production Method Invention A-1 and the matters described in Evidence A No. 1.

In addition, the Demandeé alleges the effect "the addition of a mixture of pectin and soy polysaccharides allows the increased viscosity to be maintained at a nearly constant viscosity without a sharp drop in viscosity even when the percentages of pectin and soy polysaccharides are slightly changed." However, as considered in the above 3-1(2), the above Demandeé's allegation cannot be accepted.

(3) Summary

Therefore, Invention 5 could have been easily invented by a person skilled in the art based on Production Method Invention A-1 and the matters described in Evidence A No. 1.

3-6 Regarding Invention 6

(1) Comparison between Invention 2 and Invention A-1

Invention 6 and Production Method Invention A-1 correspond to each other in terms of <Corresponding Feature 2> in the above 3-5(1) and are different from each other in terms of <Different Feature 1-8> to <Different Feature 1-10>, and the following features.

<Different Feature 1-12>

The amount of the pectin added is 30 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added in Invention 6, whereas the percentages of pectin and soy polysaccharides are unknown in Production Method Invention A-1.

(2) Judgment by the body

<Regarding Different Feature 1-8 to Different Feature 1-10>

The same can be said for Different Feature 1-8 to Different Feature 1-10 as in the above 3-5 (2).

<Regarding Different Feature 1-12>

As considered in the above Different Feature 1-1 in the above 3-5(2), the amounts of HM pectin and soy polysaccharides added are design matters to be set depending on the purpose. It is within the range assumed in Production Method

Invention A-1 that the amount of pectin added is 30 to 60% by mass relative to the total amount (100% by mass) of pectin and soy polysaccharides added.

Therefore, in Production Method Invention A-1, a person skilled in the art could have easily conceived of setting the amount of pectin added to be the same as that of Invention 6 relating to the above Different Feature 1-12 in consideration of the descriptions of [0002], [0006], [0008], [0010], and Example 2 of Evidence A No. 1.

(3) Summary

Therefore, Invention 6 could have been easily invented by a person skilled in the art based on Production Method Invention A-1 and the matters described in Evidence A No. 1.

3-7 Regarding Invention 7

(1) Comparison between Invention 7 and Production Method Invention A-1

Invention 7 and Production Method Invention A-1 correspond to each other in terms of <Corresponding Feature 2> in the above 3-5(1) and are different from each other in terms of <Different Feature 1-8> to <Different Feature 1-10>.

<Different Feature 1-13>

The amount of the pectin added in Invention 7 is 30 to 50% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added, whereas the percentages of pectin and soy polysaccharides are unknown in Production Method Invention A-1.

(2) Judgment by the body

<Regarding Different Feature 1-8 to Different Feature 1-10>

The same can be said for Different Feature 1-8 to Different Feature 1-10 as in the above 3-5 (2).

<Regarding Different Feature 1-13>

As considered in the above Different Feature 1-11 in the above 3-5(2), the amounts of HM pectin and soy polysaccharides added are design matters to be set depending on the purpose. It is within the range assumed in Invention A-1 that the amount of pectin added is 30 to 50% by mass relative to the total amount (100% by mass) of pectin and soy polysaccharides added.

Therefore, in Production Method Invention A-1, a person skilled in the art could have easily conceived of setting the amount of pectin added to be the same as that of Invention 7 relating to the above Different Feature 1-13 in consideration of the

descriptions of [0002], [0006], [0008], [0010], and Example 2 of Evidence A No. 1.

(3) Summary

Therefore, Invention 7 could have been easily invented by a person skilled in the art based on Production Method Invention A-1 and the matters described in Evidence A No. 1.

3-8 Regarding Invention 8

(1) Comparison between Invention 8 and Production Method Invention A-1

Invention 8 and Production Method Invention A-1 correspond to each other in terms of <Corresponding Feature 2> in the above 3-5(1) and are different from each other in terms of <Different Feature 1-8> to <Different Feature 1-11> and the following features.

<Different Feature 1-14>

"The lactic acid bacteria include lactic acid bacteria belonging to *Lactobacillus brevis*" in Invention 8, whereas Production Method Invention A-1 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 1-8 to Different Feature 1-11>

The same can be said for Different Feature 1-8 to Different Feature 1-11 as in the above 3-5 (2).

<Regarding Different Feature 1-14>

As stated in Evidence A No. 16 (the above 2(9)), since *Lactobacillus brevis* has been used in fermented foods for a long time, there is no recognized difficulty in using the above *Lactobacillus brevis* in fermented foods.

Therefore, a person skilled in the art could have easily conceive of providing the use of lactic acid bacteria described in the above Evidence A No. 16 for obtaining a soymilk fermented beverage in Production Method Invention A-1 as a specific matter of Invention 8 for Different Feature 1-14.

(3) Summary

Therefore, Invention 8 could have been easily invented by a person skilled in the art based on Production Method Invention A-1 and the matters described in Evidence A Nos. 1 and 16.

3-9 Regarding Invention 9

(1) Comparison between Invention 9 and Production Method Invention A-1

Invention 9 and Production Method Invention A-1 correspond to each other in terms of <Corresponding Feature 2> in the above 3-5(1) and are different from each other in terms of <Different Feature 1-8> to <Different Feature 1-11>.

<Different Feature 1-15>

Invention 9 is specified such that "the lactic acid bacteria include at least one strain selected from the group consisting of *Lactobacillus brevis* SBC8803 (deposit number: FERM BP-10632), *Lactobacillus brevis* SBC8027 (deposit number: FERM BP-10630), *Lactobacillus brevis* SBC8044 (deposit number: FERM BP-10631), *Lactobacillus brevis* JCM1061, *Lactobacillus brevis* JCM1065, and *Lactobacillus brevis* JCM1170," whereas Production Method Invention A-1 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 1-8 to Different Feature 1-11>

The same can be said for Different Feature 1-8 to Different Feature 1-11 as in the above 3-5 (2).

<Regarding Different Feature 1-15>

As described in Evidence A No. 16 (the above 2(9)), *Lactobacillus brevis* SBC8803, which is lactic acid bacteria specified in Invention 9, has been deposited to the independent administrative agency, National Institute of Advanced Industrial Science and Technology, International Patent Organism Depository on June 28, 2006 before filing of the Patent application. In addition, since *Lactobacillus brevis* has been used in fermented foods for a long time, there is no recognized difficulty in using the above *Lactobacillus brevis* SBC8803 in fermented foods.

Therefore, a person skilled in the art could have easily conceive of providing the use of lactic acid bacteria described in the above Evidence A No. 16 for obtaining a soymilk fermented beverage in Production Method Invention A-1 as a specific matter of Invention 9 for Different Feature 1-15.

(3) Summary

Therefore, Invention 9 could have been easily invented by a person skilled in the art based on Production Method Invention A-1 and the matters described in Evidence A Nos. 1 and 16.

4 Provided that Evidence A No. 2 is main cited reference

4-1 Regarding Invention 1

(1) Comparison between Invention 1 and Invention A-2

"A soft drink beverage, which is an example of water-type prescription containing fermented soymilk" and "HM pectin" in Invention A-2 correspond to the "soymilk fermented beverage" and "pectin" of Invention 1, respectively.

Then, the corresponding and different features between Invention 1 and Invention A-2 are as follows:

<Corresponding Feature 3>

A soymilk fermented beverage having a pH of less than 4.5 and comprising pectin.

<Different Feature 2-1>

The soymilk fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s in Invention 1, whereas the viscosity is unknown in Invention A-2.

<Different Feature 2-2>

In addition to pectin, Invention 1 contains soy polysaccharides, and the amount of the pectin added is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added (but soymilk fermented beverages in which pectin and soy polypeptides are those crosslinked with each other are excluded), whereas Invention A-2 contains no soybean polysaccharide.

(2) Judgment by the body

<Regarding Different Feature 2-1>

As considered in <Regarding Different Feature 1-2> in the above 3-1(2), according to Evidence A No. 10 to Evidence A No. 13 and Evidence A No. 17, a viscosity of 5.4 to 9.0 mPa·s at 7°C is recognized as one in a normal range of beverages accepted by consumers. Thus, it can be said that such a fact would not be changed before and after filing of the Patent application.

In addition, according to Evidence B No. 10, the beverage orange juice has a viscosity of about 5 to 30 mPa·s at 20°C. From this, therefore, it is also recognized that a beverage viscosity of 5.4 to 9.0 mPa·s is in a normal range.

Then, as considered in <Regarding Different Feature 1-2> in the above 3-1(2), the viscosity of Invention 1 at 7°C has no significance beyond simply specifying the viscosity as a result of the addition of pectin and soy polysaccharides.

On the other hand, Invention A-2 is a "water type" "soft drink beverage," and thus it can be said that it should have an appropriate viscosity set in the viscosity range adopted as the above beverage viscosity. Therefore, making a beverage as a soymilk fermented beverage having a viscosity at 7°C of 5.4 to 9.0 mPa·s, which is a normal range for beverages accepted by consumers, is a design matter that could be appropriately determined by a person skilled in the art.

Therefore, a person skilled in the art could easily conceive of setting the viscosity at 7°C to 5.4 to 9.0 mPa·s in Invention A-2.

Here, the Demandee alleges that, since soy polysaccharides affect the viscosity, it is necessary to consider whether it was easy to adopt the configuration of Different Feature 2-1 simultaneously with consideration of whether it was easy to adopt the configuration of Different Feature 2-2 (the petition, page 21, lines 11 to 15). However, even if soy polysaccharides affect the viscosity, other thickeners can be used to adjust the viscosity. In addition, Different Feature 2-2 specifies a range of ratios of the amounts of soy polysaccharides and pectin added. Thus, even if the ratio of the amounts added is specified, the beverage viscosity can be adjusted by adjusting the total amount of additives. Therefore, the above judgment does not depend on it.

<Regarding Different Feature 2-2>

As a stabilizer, Evidence A No. 2 suggests the use of a stabilizer other than pectin (page 24, left column, lines 1 to 8).

Evidence A No. 1 describes that acidic milk beverages contain water-soluble soy polysaccharides and high methoxyl pectin (claims, [0001] to [0004], etc.), Evidence A No. 4 describes that "the acidic soymilk beverage of the present invention contains the above stabilizer in combination with water-soluble soy polysaccharides, or preferably contains pectin in combination with water-soluble soy polysaccharides. It is thus possible to synergistically improve the bitterness and astringency peculiar to soybeans generated in the acidic region, and to obtain an acidic soymilk beverage having excellent stability and satisfying the taste." ([0026]), and Evidence A No. 6 describes that the combined use of soy polysaccharides and pectin synergistically increases the stability of soybean milk beverages (page 39, columns 3 to 4, the column of "(3) Synergistic effect of soy polysaccharides and pectin"). In acidic milk beverages, therefore, it can be said that the combined use of soy polysaccharides and pectin can be expected to synergistically increase the stability.

In addition, regarding the amounts of pectin and soy polysaccharides added in combination, Evidence A No. 1 describes that the preferred range is 0.1 to 0.5% for HM

pectin and 0.2 to 2% for water-soluble soy polysaccharides in the final product ([0008] and [0010]), and, in Experimental Example 2, HM pectin and water-soluble soy polysaccharides are set to 0.3% and 0.1%, 0.2% and 0.2%, and 0.1% and 0.3%. Evidence A No. 4 describes acidic soymilk beverages using soymilk beverages in which pectin is 0.3% and water-soluble soy polysaccharides are 0.2% and 0.4% (Products 20 and 21 from [0057] to [0060]). Evidence A No. 6 describes one in which an acidic milk beverage contains HM pectin and water-soluble soy polysaccharides in a ratio of 7: 1 to 1: 7 (Table 1 of page 40).

Then, in Invention A-2, according to the suggestion that a stabilizer other than pectin is used as a stabilizer for Evidence A No. 2, a person skilled in the art could have easily conceived of using the soy polysaccharides described in the above Evidence A Nos. 1, 4, and 6, which are expected to further improve the stability of the beverage, in combination with pectin; and, at that time, taking into consideration the description of the amounts of pectin and soy polysaccharides added, the amount of pectin added is set to 20 to 60% by mass with respect to the total amount (100% by mass) of pectin and soy polysaccharides.

Further, since soy polysaccharides and pectin at that time are simply used in combination, pectin and soy polysaccharides are not crosslinked.

<Regarding the effects of Invention 1>

The effects exerted by Invention 1 would be within the range easily conceived by a person skilled in the art from Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

(3) Summary

Therefore, Invention 1 could have been easily invented by a person skilled in the art based on Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

4-2 Regarding Invention 2

(1) Comparison between Invention 2 and Invention A-2

Invention 2 and Invention A-2 correspond to each other in terms of <Corresponding Feature 3> in the above 4-1(1) and are different from each other in terms of <Different Feature 2-1> and <Different Feature 2-2>.

<Different Feature 2-3>

In Invention 2, the amount of precipitation, which a value obtained by "(1) placing 50 ml of the soymilk fermented beverage in a 50-ml centrifuge tube and

centrifuging with a swing rotor at 20°C and 1631.5 × g for 10 minutes; (2) after (1), measuring the major and minor diameters of the precipitate obtained at the bottom of the centrifuge tube; and (3) taking a value by summing the major axis and minor axis of the precipitate measured in (2) together" is more than 0 cm and less than 11 cm, whereas Invention A-1 has an unknown amount of precipitation.

(2) Judgment by the body

<Regarding Different Feature 2-1 and Different Feature 2-2>

The same can be said for Different Feature 2-1 and Different Feature 2-2 as in the above 4-1 (2).

<Regarding Different Feature 2-3>

Considering the concrete descriptions in [0007], [0011], [0012], and [0075] to [0077], the invention-specific matters of Invention 2 relating to Different Feature 2-3 can be recognized as one that identifies a soymilk fermented beverage in which aggregation of protein components or the like is suppressed, which is the problem of the Invention, in terms of the amount of precipitation determined by a given procedure. On the other hand, Evidence A No. 2 also describes that the raw materials to which the stabilizer is added are mixed, completely dissolved, and checked for stability. Thus, it can be said that Invention A-2 suppresses aggregation and precipitation. Therefore, a person skilled in the art could have easily adjusted the content of the stabilizer to prevent aggregation and precipitation. In addition, there is no recognized difficulty in appropriately adjusting the degrees thereof so as to satisfy the invention-specific matter of Invention 2 for Different Feature 2-3.

(3) Summary

Therefore, Invention 2 could have been easily invented by a person skilled in the art based on Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

4-3 Regarding Invention 3

(1) Comparison between Invention 3 and Invention A-2

Invention 3 and Invention A-2 correspond to each other in terms of <Corresponding Feature 3> in the above 4-1(1) and are different from each other in terms of <Different Feature 2-1>, <Different Feature 2-2>, and the following features.

<Different Feature 2-4>

"The beverage is obtained by fermenting soymilk with lactic acid bacteria" in Invention 3, whereas Invention A-2 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 2-1 and Different Feature 2-2>

The same can be said for Different Feature 2-1 and Different Feature 2-2 as in the above 4-1 (2).

<Regarding Different Feature 2-4>

Evidence A No. 2 describes that fermented soymilk can be obtained using lactic acid bacteria (page 22, left column, lines 9 to 7 from the bottom).

Therefore, in Invention A-2, a person skilled in the art could have easily conceived of obtaining fermented soymilk by fermenting soymilk with lactic acid bacteria to obtain fermented soymilk.

(3) Summary

Therefore, Invention 3 could have been easily invented by a person skilled in the art based on Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

4-4 Regarding Invention 4

(1) Comparison between Invention 4 and Invention A-1

Invention 4 and Invention A-2 correspond to each other in terms of <Corresponding Feature 3> in the above 4-1(1) and are different from each other in terms of <Different Feature 2-1>, <Different Feature 2-2>, and <Different Feature 2-4> and the following features.

<Different Feature 2-5>

Invention 4 is specified such that "the lactic acid bacteria include at least one strain selected from the group consisting of Lactobacillus brevis SBC8803 (deposit number: FERM BP-10632), Lactobacillus brevis SBC8027 (deposit number: FERM BP-10630), Lactobacillus brevis SBC8044 (deposit number: FERM BP-10631), Lactobacillus brevis JCM1061, Lactobacillus brevis JCM1065, and Lactobacillus brevis JCM1170," whereas Production Method Invention A-2 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 2-1, Different Feature 2-2, and Different Feature 2-4>

The same can be said for Different Feature 2-1, Different Feature 2-2, and Different Feature 2-4 as in the above 4-1(2) and 4-3(2).

<Regarding Different Feature 2-5>

As described in Evidence A No. 16 (the above 2(9)), Lactobacillus brevis

SBC8803, which is lactic acid bacteria specified in Invention 4, has been deposited to the independent administrative agency, National Institute of Advanced Industrial Science and Technology, International Patent Organism Depository on June 28, 2006 before filing of the Patent application. In addition, since *Lactobacillus brevis* has been used in fermented foods for a long time, there is no recognized difficulty in using the above *Lactobacillus brevis* SBC8803 in fermented foods.

Therefore, a person skilled in the art could have easily conceive of providing the use of lactic acid bacteria described in the above Evidence A No. 16 for obtaining a soymilk fermented beverage in Invention A-2 as a specific matter of Invention 4 for Different Feature 2-5.

(3) Summary

Therefore, Invention 4 could have been easily invented by a person skilled in the art based on Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, 6, and 16.

4-5 Regarding Invention 5

(1) Comparison between Invention 5 and Production Method Invention A-2

"HM pectin" in Production Method Invention A-2 corresponds to "pectin" of Invention 5.

"A soft drink beverage, which is an example of water-type prescription containing fermented soymilk" in Production Method Invention A-2 corresponds to "soymilk fermented beverage" in Invention 5, and "sterilized fermented soymilk Happiness HFST-100" in Production Method Invention A-2 corresponds to "fermented soymilk product" in Invention 5.

In addition, "sufficiently mixing fructose-glucose liquid sugar, sugar, pasteurized fermented soymilk Happiness HFST-100, a 2% HM pectin solution, and water; adding to the completely dissolved product a lactic acid solution" in Production Method Invention A-2 is common with "adding pectin and soy polysaccharides to the fermented soymilk product" in Invention 5 as far as "adding pectin to the fermented soymilk product."

The step of adjusting to "pH3.4" by "adding" "sodium citrate" in Production Method Invention A-2 corresponds to "adjusting the pH thereof so as to allow the soymilk fermented beverage to have a pH of less than 4.5" in Invention 5.

Then, the corresponding and different features between Invention 5 and

Production Method Invention A-2 are as follows:

<Corresponding Feature 4>

A production method for a soymilk fermented beverage comprising the steps of:
adding pectin to a fermented soymilk product; and

adjusting the pH thereof so as to allow the soymilk fermented beverage to have a pH of less than 4.5.

<Different Feature 2-6>

Invention 5 includes "fermenting soymilk with lactic acid bacteria to obtain a fermented soymilk product," whereas Production Method Invention A-2 uses "sterilized fermented soymilk Happiness HFST-100."

<Different Feature 2-7>

The step of addition is "adding pectin and soy polysaccharides to the fermented soymilk product," which is "adding the pectin and the soy polysaccharides as a mixture or adding them separately," in Invention 5, whereas Production Method Invention A-2 includes no addition of soy polysaccharides.

<Different Feature 2-8>

The amount of the pectin added in Invention 5 is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added, whereas Production Method Invention A-2 includes no addition of soy polysaccharides.

<Different Feature 2-9>

The soymilk fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s in Invention 1, whereas the viscosity is unknown in Production Method Invention A-2.

(2) Judgment by the body

<Regarding Different Feature 2-6>

Exhibit A No. 2 describes that fermented milk is obtained using lactic acid bacteria for animal and plant proteins.

Therefore, a person skilled in the art could have easily conceived of providing Production Method Invention A-2 with fermenting soymilk with lactic acid bacteria to obtain a fermented soymilk product in place of using sterilized fermented soymilk Happiness HFST-100.

<Regarding Different Feature 2-7>

Just as considered in <Regarding Different Feature 2-2> in the above 4-1(2), a

person skilled in the art could have easily conceived of adding soy polysaccharides in addition to pectin in Production Method Invention A-2.

In addition, at that time, it is natural that the pectin and the soy polysaccharides are added as a mixture or separately added.

<Regarding Different Feature 2-8>

As a stabilizer, Evidence A No. 2 suggests the use of a stabilizer other than pectin (page 24, left column, lines 1 to 8).

Evidence A No. 1 describes that acidic milk beverages contain water-soluble soy polysaccharides and high methoxyl pectin (claims, [0001] to [0004], etc.), Evidence A No. 4 describes that "the acidic soymilk beverage of the present invention contains the above stabilizer in combination with water-soluble soy polysaccharides, or preferably contains pectin in combination with water-soluble soy polysaccharides. It is thus possible to synergistically improve the bitterness and astringency peculiar to soybeans generated in the acidic region, and to obtain an acidic soymilk beverage having excellent stability and satisfying the taste." ([0026]), and Evidence A No. 6 describes that the combined use of soy polysaccharides and pectin synergistically increases the stability of soybean milk beverages (page 39, columns 3 to 4, the column of "(3) Synergistic effect of soy polysaccharides and pectin"). In acidic milk beverages, therefore, it can be said that the combined use of soy polysaccharides and pectin can be expected to synergistically increase the stability.

In addition, regarding the amounts of pectin and soy polysaccharides added in combination, Evidence A No. 1 describes that the preferred range is 0.1 to 0.5% for HM pectin and 0.2 to 2% for water-soluble soy polysaccharides in the final product ([0008] and [0010]), and, in Experimental Example 2, HM pectin and water-soluble soy polysaccharides are set to 0.3% and 0.1%, 0.2%, and 0.2%, and 0.1% and 0.3%. Evidence A No. 4 describes acidic soymilk beverages using soymilk beverages in which pectin is 0.3% and water-soluble soy polysaccharides are 0.2% and 0.4% (Products 20 and 21 from [0057] to [0060]). Evidence A No. 6 describes one in which an acidic milk beverage containing HM pectin and water-soluble soy polysaccharides in a ratio of 7: 1 to 1: 7 (Table 1 of page 40).

Then, in Invention A-2, according to the suggestion that a stabilizer other than pectin is used as a stabilizer for Evidence A No. 2, a person skilled in the art could have easily conceived of using the soy polysaccharides described in the above Evidence A Nos. 1, 4, and 6, which are expected to further improve the stability of the beverage, in combination with pectin; and, at that time, taking into consideration the description of the amounts of pectin and soy polysaccharides added, the amount of pectin added is set

to 20 to 60% by mass with respect to the total amount (100% by mass) of pectin and soy polysaccharides.

<Regarding Different Feature 2-9>

Different Feature 2-9 is substantially the same as Different Feature 2-1 in the above 4-1(1). Thus, a person skilled in the art could have easily conceived of Invention 5 for the same reason as that of <Regarding Different Feature 2-1> in the above 4-1(2).

<Regarding the effects of Invention 5>

The effects exerted by Invention 5 would be within the range easily conceived by a person skilled in the art from Production Method Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

(3) Summary

Therefore, Invention 5 could have been easily invented by a person skilled in the art based on Production Method Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

4-6 Regarding Invention 6

(1) Comparison between Invention 6 and Production Method Invention A-2

Invention 6 and Production Method Invention A-2 correspond to each other in terms of <Corresponding Feature 4> in the above 4-5(1) and are different from each other in terms of <Different Feature 2-6>, <Different Feature 2-7>, <Different Feature 2-9>, and the following features.

<Different Feature 2-10>

The amount of the pectin added in Invention 6 is 30 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added, whereas Production Method Invention A-2 includes no addition of soy polysaccharides.

(2) Judgment by the body

<Regarding Different Feature 2-6, Different Feature 2-7, and Different Feature 2-9>

The same can be said for Different Feature 2-6, Different Feature 2-7, and Different Feature 2-9 as in the above 4-5 (2).

<Regarding Different Feature 2-10>

Just as considered in <Regarding Different Feature 2-8> in the above 4-5(2), a

person skilled in the art could have easily conceived of setting the amount of pectin added to be the same as that of Invention 6 relating to the above Different Feature 2-10.

(3) Summary

Therefore, Invention 6 could have been easily invented by a person skilled in the art based on Production Method Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

4-7 Regarding Invention 7

(1) Comparison between Invention 7 and Production Method Invention A-2

Invention 7 and Production Method Invention A-2 correspond to each other in terms of <Production Method Invention A-2> in the above 4-5(1) and are different from each other in terms of <Different Feature 2-6>, <Different Feature 2-7>, <Different Feature 2-9>, and the following features.

<Different Feature 2-11>

The amount of the pectin added in Invention 7 is 30 to 50% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added, whereas Production Method Invention A-2 includes no addition of soy polysaccharides.

(2) Judgment by the body

<Regarding Different Feature 2-6, Different Feature 2-7, and Different Feature 2-9>

The same can be said for Different Feature 2-6, Different Feature 2-7, and Different Feature 2-9 as in the above 4-5(2).

<Regarding Different Feature 2-11>

Just as considered in <Regarding Different Feature 2-8> in the above 4-5(2), a person skilled in the art could have easily conceived of setting the amount of pectin added to be the same as that of Invention 7 relating to the above Different Feature 2-11.

(3) Summary

Therefore, Invention 7 could have been easily invented by a person skilled in the art based on Production Method Invention A-2 and Invention A-1 and the matters described in Evidence A Nos. 1, 2, 4, and 6.

4-8 Regarding Invention 8

(1) Comparison between Invention 8 and Production Method Invention A-2

Invention 8 and Production Method Invention A-2 correspond to each other in terms of <Corresponding Feature 4> in the above 4-5 (1) and are different from each other in terms of <Different Feature 2-6> to <Different Feature 2-9>.

<Different Feature 2-12>

"The lactic acid bacteria include lactic acid bacteria belonging to *Lactobacillus brevis*" in Invention 8, whereas Invention A-2 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 2-6 to Different Feature 2-9>

The same can be said for Different Feature 2-6 to Different Feature 2-9 as in the above 4-5(2).

<Regarding Different Feature 2-12>

As stated in Evidence A No. 16 (the above 2(9)), since *Lactobacillus brevis* has been used in fermented foods for a long time, there is no recognized difficulty in using the above *Lactobacillus brevis* in fermented foods.

Therefore, a person skilled in the art could have easily conceive of providing the use of lactic acid bacteria described in the above Evidence A No. 16 for obtaining a soymilk fermented beverage in Production Method Invention A-2 as a specific matter of Invention 8 for Different Feature 2-12.

(3) Summary

Therefore, Invention 8 could have been easily invented by a person skilled in the art based on Production Method Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, 6, and 16.

4-9 Regarding Invention 9

(1) Comparison between Invention 9 and Production Method Invention A-2

Invention 9 and Production Method Invention A-2 correspond to each other in terms of <Corresponding Feature 4> in the above 4-5(1) and are different from each other in terms of <Different Feature 2-6> to <Different Feature 2-9>.

<Different Feature 2-13>

Invention 9 is specified such that "the lactic acid bacteria include at least one strain selected from the group consisting of *Lactobacillus brevis* SBC8803 (deposit number: FERM BP-10632), *Lactobacillus brevis* SBC8027 (deposit number: FERM BP-10630), *Lactobacillus brevis* SBC8044 (deposit number: FERM BP-10631), *Lactobacillus brevis* JCM1061, *Lactobacillus brevis* JCM1065, and *Lactobacillus brevis*

JCM1170," whereas Production Method Invention A-2 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 2-6 to Different Feature 2-9>

The same can be said for Different Feature 2-6 to Different Feature 2-9 as in the above 4-5 (2).

<Regarding Different Feature 2-13>

As described in Evidence A No. 16 (the above 2(9)), *Lactobacillus brevis* SBC8803, which is lactic acid bacteria specified in Invention 4, has been deposited to the independent administrative agency, National Institute of Advanced Industrial Science and Technology, International Patent Organism Depository on June 28, 2006 before filing of the Patent application. In addition, since *Lactobacillus brevis* has been used in fermented foods for a long time, there is no recognized difficulty in using the above *Lactobacillus brevis* SBC8803 in fermented foods.

Therefore, a person skilled in the art could have easily conceive of providing the use of lactic acid bacteria described in the above Evidence A No. 16 for obtaining a soymilk fermented beverage in Production Method Invention A-2 as a specific matter of Invention 9 for Different Feature 2-13.

(3) Summary

Therefore, Invention 9 could have been easily invented by a person skilled in the art based on Production Method Invention A-2 and the matters described in Evidence A Nos. 1, 2, 4, 6, and 16.

5 Provided that Evidence A No. 3 is main cited reference

5-1 Regarding Invention 1

(1) Comparison between Invention 1 and Invention A-3

"A soymilk-fermented lactic acid bacteria beverage" and "water-soluble soy polysaccharides" in Invention A-3 correspond to the "soymilk fermented beverage" and "soy polysaccharides" of Invention 1, respectively.

Then, the corresponding and different features between Invention 1 and Invention A-3 are as follows:

<Corresponding Feature 5>

A soymilk fermented beverage having a pH of less than 4.5 and comprising soy

polysaccharides.

<Different Feature 3-1>

The soymilk fermented beverage has a viscosity at 7°C of 5.4 to 9.0 mPa·s in Invention 1, whereas the viscosity is unknown in Invention A-3.

<Different Feature 3-2>

In addition to soy polysaccharides, Invention 1 contains pectin (but soymilk fermented beverages in which pectin and soy polypeptides are those crosslinked with each other are excluded) and the amount of the pectin added is 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added, whereas Invention A-3 contains no pectin.

(2) Judgment by the body

<Regarding Different Feature 3-1>

As considered in <Regarding Different Feature 1-2> in the above 3-1(2), according to Evidence A No. 10 to Evidence A No. 13 and Evidence A No. 17, a viscosity of 5.4 to 9.0 mPa·s at 7°C is recognized as one in a normal range of beverages accepted by consumers. Thus, it can be said that such a fact would not be changed before and after filing of the Patent application.

In addition, according to Evidence B No. 10, the beverage orange juice has a viscosity of about 5 to 30 mPa·s at 20°C. From this, therefore, it is also recognized that a beverage viscosity of 5.4 to 9.0 mPa·s is in a normal range.

Then, as considered in <Regarding Different Feature 1-2> in the above 3-1(2), the viscosity of Invention 1 at 7°C has no significance beyond simply specifying the viscosity as a result of the addition of pectin and soy polysaccharides.

On the other hand, Evidence A No. 3 describes that an increase in viscosity should be avoided [0033] and [0034], and thus, in Invention A-3, in the viscosity range employed as the above viscosity in Invention A-3, setting the viscosity lower and making a beverage as a soymilk fermented beverage having a viscosity at 7°C of 5.4 to 9.0 mPa·s, which is a normal range for beverages accepted by consumers, is a design matter that could be appropriately determined by a person skilled in the art.

Therefore, a person skilled in the art could easily conceive of setting the viscosity at 7°C to 5.4 to 9.0 mPa·s in Invention A-3,

<Regarding Different Feature 3-2>

Evidence A No. 3 describes that "Possible anti-precipitation stabilizers include water-soluble soy polysaccharides, microcrystalline cellulose, and pectin and one or

more of them, preferably the water-soluble soy polysaccharides, is selected to be used." ([0017]).

Evidence A No. 1 describes that acidic milk beverages contain water-soluble soy polysaccharides and high methoxyl pectin (claims, [0001] to [0004], etc.), Evidence A No. 4 describes that "the acidic soymilk beverage of the present invention contains the above stabilizer in combination with water-soluble soy polysaccharides, or preferably contains pectin in combination with water-soluble soy polysaccharides. It is thus possible to synergistically improve the bitterness and astringency peculiar to soybeans generated in the acidic region, and to obtain an acidic soymilk beverage having excellent stability and satisfying the taste." ([0026]), and Evidence A No. 6 describes that the combined use of soy polysaccharides and pectin synergistically increases the stability of soybean milk beverages (page 39, columns 3 to 4, the column of "(3) Synergistic effect of soy polysaccharides and pectin"). In acidic milk beverages, therefore, it can be said that the combined use of soy polysaccharides and pectin can be expected to synergistically increase the stability.

In addition, regarding the amounts of pectin and soy polysaccharides added in combination, Evidence A No. 1 describes that the preferred range is 0.1 to 0.5% for HM pectin and 0.2 to 2% for water-soluble soy polysaccharides in the final product ([0008] and [0010]), and, in Experimental Example 2, HM pectin and water-soluble soy polysaccharides are set to 0.3% and 0.1%, 0.2% and 0.2%, and 0.1% and 0.3%. Evidence A No. 4 describes acidic soymilk beverages using soymilk beverages in which pectin is 0.3% and water-soluble soy polysaccharides are 0.2% and 0.4% (Products 20 and 21 from [0057] to [0060]). Evidence A No. 6 describes one in which an acidic milk beverage containing HM pectin and water-soluble soy polysaccharides in a ratio of 7: 1 to 1: 7 (Table 1 of page 40).

Therefore, in Invention A-3, a person skilled in the art could have easily conceived of using soy polysaccharides and pectin described in the above Evidence A Nos. 1, 4, and 6, which hold promise of an increase in stability of beverage, in consideration of the above descriptions in Evidence A No. 3 and at this time setting the amount of the pectin added to 20 to 60% by mass with respect to the total amount (100% by mass) of the pectin added and the soy polysaccharides added in consideration of the description about the amounts of pectin and soy polysaccharides added.

Further, since soy polysaccharides and pectin at that time are simply used in combination, pectin and soy polysaccharides are not crosslinked.

<Regarding the effects of Invention 1>

The effects exerted by Invention 1 would be within the range easily conceived by a person skilled in the art from Invention A-3 and the matters described in Evidence A Nos. 1, 3, 4, and 6.

(3) Summary

Therefore, Invention 1 could have been easily invented by a person skilled in the art based on Invention A-3 and the matters described in Evidences A Nos. 1, 3, 4, and 6.

5-2 Regarding Invention 2

(1) Comparison between Invention 2 and Invention A-3

Invention 2 and Invention A-3 correspond to each other in terms of <Corresponding Feature 5> in the above 5-1(1) and are different from each other in terms of <Different Feature 3-1>, <Different Feature 3-2>, and the following features. <Different Feature 3-3>

In Invention 2, the amount of precipitation, which a value obtained by "(1) placing 50 ml of the soymilk fermented beverage in a 50-ml centrifuge tube and centrifuging with a swing rotor at 20°C and $1631.5 \times g$ for 10 minutes; (2) after (1), measuring the major and minor diameters of the precipitate obtained at the bottom of the centrifuge tube; and (3) taking a value by summing the major axis and minor axis of the precipitate measured in (2) together" is more than 0 cm and less than 11 cm, whereas Invention A-3 has an unknown amount of precipitation.

(2) Judgment by the body

<Regarding Different Feature 3-1 and Different Feature 3-2>

The same can be said for Different Feature 3-1 and Different Feature 3-2 as in the above 5-1(2).

<Regarding Different Feature 3-3>

Considering the concrete descriptions in [0007], [0011], [0012], and [0075] to [0077], the invention-specific matter of Invention 3 relating to Different Feature 3-3 can be recognized as one that identifies a soymilk fermented beverage in which aggregation of protein components or the like is suppressed, which is the problem of the Invention, in terms of the amount of precipitation determined by a given procedure. On the other hand, Evidence A No. 3 describes that "For extending the shelf life of the fermented soymilk, an anti-precipitation stabilizer may be further added. Possible anti-precipitation stabilizers include water-soluble soy polysaccharides, microcrystalline cellulose, and pectin and one or more of them, preferably the water-soluble soy

polysaccharides, is selected to be used." ([0017]). Thus, it can be said that Invention A-3 suppresses aggregation and precipitation. Therefore, a person skilled in the art could have easily adjusted the content of the anti-precipitation stabilizer to prevent aggregation and precipitation. In addition, there is no recognized difficulty in appropriately adjusting the degrees thereof so as to satisfy the invention-specific matter of Invention 2 for Different Feature 3-3.

(3) Summary

Therefore, Invention 2 could have been easily invented by a person skilled in the art based on Invention A-1 and the matters described in Evidence A Nos. 1, 3, 4, and 6.

5-3 Regarding Invention 3

(1) Comparison between Invention 3 and Invention A-3

Invention 3 and Invention A-3 correspond to each other in terms of <Corresponding Feature 5> in the above 5-1(1) and are different from each other in terms of <Different Feature 3-1>, <Different Feature 3-2>, and the following features. <Different Feature 3-4>

"The beverage is obtained by fermenting soymilk with lactic acid bacteria" in Invention 3, whereas Invention A-3 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 3-1 and Different Feature 3-2>

The same can be said for Different Feature 3-1 and Different Feature 3-2 as in the above 5-1 (2).

<Regarding Different Feature 3-4>

Exhibit A No. 3 describes that fermented milk is obtained using lactic acid bacteria ([0029]).

Therefore, Different Feature 3-4 is not a substantial different feature.

(3) Summary

Therefore, a person skilled in the art could have easily invented Invention 3 based on the matters described in Invention A-3 and Evidence A Nos. 1, 3, 4, and 6.

5-4 Regarding Invention 4

(1) Comparison between Invention 4 and Invention A-3

Invention 4 and Invention A-3 correspond to each other in terms of <Corresponding Feature 5> in the above 5-1(1) and are different from each other in terms of <Different Feature 3-1>, <Different Feature 3-2>, <Different Feature 3-4>, and the following features.

<Different Feature 3-5>

Invention 4 is specified such that "the lactic acid bacteria include at least one strain selected from the group consisting of Lactobacillus brevis SBC8803 (deposit number: FERM BP-10632), Lactobacillus brevis SBC8027 (deposit number: FERM BP-10630), Lactobacillus brevis SBC8044 (deposit number: FERM BP-10631), Lactobacillus brevis JCM1061, Lactobacillus brevis JCM1065, and Lactobacillus brevis JCM1170," whereas Invention A-3 is not specified as such.

(2) Judgment by the body

<Regarding Different Feature 3-1, Different Feature 3-2, and Different Feature 3-4>

The same can be said for Different Feature 3-1, Different Feature 3-2, and Different Feature 3-4 as in the above 5-1 (2) and 5-3(2).

<Regarding Different Feature 3-5>

As described in Evidence A No. 16 (the above 2(9)), Lactobacillus brevis SBC8803, which is lactic acid bacteria specified in Invention 4, has been deposited to the independent administrative agency, National Institute of Advanced Industrial Science and Technology, International Patent Organism Depository on June 28, 2006 before filing of the Patent application. In addition, since Lactobacillus brevis has been used in fermented foods for a long time, there is no recognized difficulty in using the above Lactobacillus brevis SBC8803 in fermented foods.

Therefore, a person skilled in the art could have easily conceive of providing the use of lactic acid bacteria described in the above Evidence A No. 16 for obtaining a soymilk fermented beverage in Invention A-3 as a specific matter of Invention 4 for Different Feature 3-5.

(3) Summary

Therefore, Invention 4 could have been easily invented by a person skilled in the art based on Invention A-3 and the matters described in Evidence A Nos. 1, 3, 4, 6, and 16.

No. 4 Closing

As stated above, Inventions 1 to 9 could have been easily invented by a person

skilled in the art based on the invention disclosed in Evidence A No. 1 and the matters described in Evidence A Nos. 1 and 16 or based on the invention disclosed in Evidence A No. 2 and the matters described in Evidence A Nos. 1, 2, 4, 6, and 16. Also, Inventions 1 to 4 could have been easily invented by a person skilled in the art based on the invention disclosed in Evidence A No. 3 and the matters described in Evidence A Nos. 1, 3, 4, 6, and 16.

Therefore, the Patent for Claims 1 to 9 of the case should be invalidated because it has been granted in violation of the provisions of Article 29(2) of the Patent Act and falls under Article 123(1)(ii) of the Patent Act.

Furthermore, the Patent for Claim 10 has been deleted by the correction, and thus the appeal of the case for Claim 10 shall be dismissed under the provisions of Article 135 of the Patent Act.

The costs in connection with the trial shall be borne by the Demandee under the provisions of Article 61 of the Code of Civil Procedure which is applied *mutatis mutandis* in the provisions of Article 169(2) of the Patent Act.

Therefore, the trial decision shall be made as described in the conclusion.

April 24, 2018

Chief administrative judge: KIMOTO, Takashi
Administrative judge: SASAKI, Seisho
Administrative judge: YAMAZAKI, Katsushi