taste such as bitter taste. The inventors have then made intensive studies, and as a result, have found a method for enhancing salty taste of instant Japanese noodles without causing any sensing of odd taste in reduction in amount of salt for use in the noodles, thereby leading to the present invention.

[0011]

Specifically, provided is a method for producing instant Japanese noodles, including kneading potassium lactate, granulated sugar, citric acid, and a dried bonito processed product and/or a kelp processed product into noodles to enhance salty taste, in addition to reducing an amount of salt kneaded into the noodles.

[0012]

In a case where the instant Japanese noodles in the present invention are wheat noodles, it is preferable to add 0.03 to 0.08 g of potassium lactate, 0.05 to 0.20 g of granulated sugar, 0.04 to 0.17 g of citric acid, and 0.004 to 0.15 g of a kelp processed product in terms of kelp dry matter, per a reduced amount of 1 g of salt added to the noodles.

[0013]

In a case where the instant Japanese noodles in the present invention are buckwheat noodles, it is preferable to add 0.10 to 0.39 g of potassium lactate, 0.03 to 0.13 g of granulated sugar, 0.003 to 0.063 g of citric acid, and 0.06 to 0.25 g of a dried bonito processed product in terms of dried bonito dry matter, per a reduced amount of 1 g of salt added to the noodles.

ADVANTAGEOUS EFFECTS OF INVENTION

[0014]

The present invention can provide a method for producing instant Japanese noodles having a reduced amount of salt kneaded into the noodles, wherein the instant Japanese noodles are enhanced in salty taste.

DESCRIPTION OF EMBODIMENTS

[0015]

Hereinafter, the present invention is described in detail. However, the present invention is not limited by the following description.

[0016]

1. Raw material formulation of Japanese noodles

[0020]

(Granulated sugar)

Granulated sugar is soluble in water, and therefore can be dissolved in kneading water before adding and thus granulated sugar can be kneaded into the noodles in this manner. While granulated sugar is specified herein, other sugar may be used in the present invention. In this case, such other sugar is added so as to impart a degree of sweetness comparable with that of granulated sugar. Granulated sugar has no miscellaneous taste, and causes no unclear taste, and an enhancement of salty taste is thus easily adjusted when using granulated sugar, as compared with other sugar. The amount of granulated sugar added is preferably 0.05 to 0.20 g per a reduced amount of 1 g of salt, in a case where the instant Japanese noodles are wheat noodles. The amount of granulated sugar added is preferably 0.03 to 0.13 g per a reduced amount of 1 g of salt in a case where the instant Japanese noodles are buckwheat noodles.

[0021]

(Citric acid)

Citric acid is soluble in water, and therefore can be dissolved in kneading water before adding, and thus citric acid can be kneaded into the noodles in this manner. While citric acid is specified herein, conversion is made in terms of anhydride in the present invention. Citric acid has less acid odor and also mild acid taste, and an enhancement of salty taste is thus easily adjusted when using citric acid, as compared with other acid. The amount of citric acid added is preferably 0.04 to 0.17 g per a reduced amount of 1 g of salt, in a case where the instant Japanese noodles are wheat noodles. The amount of citric acid added is preferably 0.003 to 0.063 g per a reduced amount of 1 g of salt in a case where the instant Japanese noodles are buckwheat noodles.

[0022]

(Kelp processed product)

Examples of the kelp processed product in the present invention include a powdered product of dried kelp, an extract from kelp, and a liquid product obtained by processing kelp by itself with a blender. The liquid product or extracted product can be dissolved in kneading water before added, and thus the kelp processed product can be kneaded into the noodles in this manner. The dried kelp powder can be added to and mixed with the main raw material powder, and thus the kelp processed product can be kneaded into the noodles in this manner. The kelp processed product is preferably added to wheat noodles, which has

[Table 1]

Test Section	Salt	Potassium lactate	Granulated sugar	Citric acid	Kelp powder	Dried bonito powder	Kelp extract	Score	Comment
	g/kg of main raw material powder	g/g of reduced amount of salt	g/g of reduced amount of salt	g/g of reduced amount of salt	g of dry matter/g of reduced amount of salt	g of dry matter/g of reduced amount of salt	g of dry matter/g of reduced amount of salt		
1	28			(0.5g/ kg of main raw material powder)				5	Control (before salt reduction)
2	22			0.08				1	Reduced-salt product (by about 20%)
3	22	0.04		0.08				2	Slightly, but insufficiently enhanced in salty taste
4	22		0.05	0.08				2	Slightly, but insufficiently enhanced in salty taste
5	22	0.04	0.05	0.08				3	Enhanced in salty taste only at passing level
6	22	0.04	0.05	0.08	0.08			5	Very favorable at same level as in Test Section 1
7	22	0.04	0.05	0.08		0.25		4	Favorable salty taste, but bonito flavor sensed
8	22	0.04	0.05	0.08	0.05	0.08		4	Favorable salty taste, but bonito flavor sensed slightly
9	22	0.03	0.05	0.08	0.08			4	Salty taste weaker than in Test Section 6, but at favorable level
10	22	0.08	0.05	0.08	0.08			4	Harsh taste more sensed than in Test Section 6, but salty taste sensed at favorable level
11	22	0.04	0.05	0.04	0.08			4	Salty taste weaker than in Test Section 6, but at favorable level
12	22	0.04	0.05	0.17	0.08			4	Acid taste more sensed than in Test Section 6, but salty taste sensed at favorable level
13	22	0.04	0.10	0.08	0.08			5	Very favorable at same level as in Test Section 1. Slightly stronger salty taste than in Test Section 6
14	22	0.04	0.20	0.08	0.08			4	Salty taste weaker than in Test Section 6, but at favorable level
15	22	0.04	0.05	0.08	0.15			4	Kelp taste more sensed than in Test Section 6, but salty taste sensed at favorable level
16	22	0.04	0.10	0.08			0.004	4	Salty taste weaker than in Test Section 6, but at favorable level
17	22	0.04	0.10	0.08			0.009	5	Very favorable at same level as in Test Sections 1 and 13

[0054]

Instant Japanese noodles (wheat noodles) are white noodles and thus an acid such as citric acid is incorporated thereinto in order not to cause browning of the noodles by frying and drying. As shown in Experiment 1, salty taste of instant Japanese noodles (wheat noodles) was enhanced by adding potassium lactate, granulated sugar, citric acid, and a kelp processed product and/or a dried bonito processed product, instead of salt reduced in amount thereof, and thus instant Japanese noodles (wheat noodles) having favorable salty taste was obtained. A dried bonito processed product was more preferable than a kelp processed product in the instant Japanese noodles (wheat noodles), and a kelp processed product more exhibited the effect of enhancing salty taste when added in the form of a kelp liquid (extract), than when added in the form of a kelp powder. Preferable amounts added, per a reduced amount of 1 g of salt added to the noodles, were as follows: potassium lactate: 0.03 to 0.08 g; granulated sugar: 0.05 to 0.20 g; citric acid: 0.04 to 0.17 g; and kelp processed product in terms of dry matter: 0.004 to 0.15 g.

[0055]

<Experiment 2> Examination of instant Japanese noodles (buckwheat noodles)
(Test Example 18)

Noodle dough (dough) was prepared by mixing 1 kg of a main raw material powder consisting of 650 g of wheat flour, 50 g of tapioca starch and 300 g of buckwheat flour with 10 g of gluten and 5 g of calcium carbonate as sub raw material powders, adding kneading water obtained by dissolving 20 g of salt, 4.5 g of trisodium phosphate, 2.3 g of polymeric phosphate and 0.4 g of a tocopherol preparation in 380 g of water, further adding 3 ml of palm olein oil thereto, and mixing the resultant by a normal pressure mixer for 15 minutes.

[0056]

The dough prepared was formed into a crude noodle belt by a roll, and compounded to thereby prepare a noodle belt. The noodle belt prepared was rolled out with a roll so that the final noodle belt thickness was 1.0 mm, and the noodle belt was cut with a cutting blade roll of a square blade (No. 18), to thereby provide noodle strings.

[0057]

Next, the noodle strings were steamed for 2 minutes in a steam chamber into which saturated steam was introduced at a flow rate of 240 kg/h, to thereby gelatinize the noodle strings.

[0058]

[Table 2]

Test Section	Salt	Potassium lactate	Granulated sugar	Citric acid	Dried bonito powder	Kelp powder	Dried bonito extract	Score	Comment
	g/kg of main raw material powder	g/g of reduced amount of salt	g/g of reduced amount of salt	g/g of reduced amount of salt	g of dry matter/g of reduced amount of salt	g of dry matter/g of reduced amount of salt	g of dry matter/g of reduced amount of salt		
18	20							5	Control (before salt reduction)
19	12							1	Reduced-salt product (by about 40%)
20	12	0.20						2	Slightly, but insufficiently enhanced in salty taste
21	12		0.04					2	Slightly, but insufficiently enhanced in salty taste
22	12			0.013				2	Slightly, but insufficiently enhanced in salty taste
23	12	0.20	0.04	0.013				3.5	Salty taste sensed at passing level, but not favorably
24	12	0.20	0.04	0.013	0.13			5	Very favorable at same level as in Test Section 18
25	12	0.20	0.04	0.013		0.06		4	Salty taste favorable, but slightly weaker than in Test Section 24
26	12	0.10	0.04	0.013	0.13			4	Salty taste weaker than in Test Section 24, but at favorable level
27	12	0.39	0.04	0.013	0.13			4	Harsh taste more sensed than in Test Section 24, but salty taste sensed at favorable level
28	12	0.20	0.04	0.003	0.13			4	Salty taste weaker than in Test Section 24, but at favorable level
29	12	0.20	0.04	0.063	0.13			4	Acid taste more sensed than in Test Section 24, but salty taste sensed at favorable level
30	12	0.20	0.03	0.013	0.13			4	Salty taste weaker than in Test Section 6, but at favorable level
31	12	0.20	0.13	0.013	0.13			4	Sweet taste more sensed than in Test Section 24, but salty taste sensed at favorable level
32	12	0.20	0.13	0.013	0.06			4	Very favorable at same level as in Test Sections 1 and 18
33	12	0.20	0.13	0.013	0.25			4	Very favorable at same level as in Test Sections 1 and 18
34	12	0.20	0.13	0.013			0.13	4	Very favorable at same level as in Test Sections 1 and 18

Claims

[Claim 1]

A method for producing instant Japanese noodles, comprising kneading potassium lactate, granulated sugar, citric acid, and a dried bonito processed product and/or a kelp processed product into noodles to enhance salty taste, in addition to reducing an amount of salt kneaded into the noodles.

[Claim 2]

The method for producing instant Japanese noodles according to claim 1,

wherein the instant Japanese noodles are wheat noodles, and

wherein the method comprises adding 0.03 to 0.08 g of potassium lactate, 0.05 to 0.20 g of granulated sugar, 0.04 to 0.17 g of citric acid, and 0.004 to 0.15 g of a kelp processed product in terms of kelp dry matter, per a reduced amount of 1 g of salt added to the noodles.

[Claim 3]

The method for producing instant Japanese noodles according to claim 1,

wherein the instant Japanese noodles are buckwheat noodles, and

wherein the method comprises adding 0.10 to 0.39 g of potassium lactate, 0.03 to 0.13 g of granulated sugar, 0.003 to 0.063 g of citric acid, and 0.06 to 0.25 g of a dried bonito processed product in terms of dried bonito dry matter, per a reduced amount of 1 g of salt added to the noodles.

[Claim 4]

A method for enhancing salty taste of instant Japanese noodles, comprising kneading potassium lactate, granulated sugar, citric acid, and a dried bonito processed product and/or a kelp processed product into noodles to enhance salty taste, in addition to reducing an amount of salt kneaded into the noodles.

[Claim 5]

The method for enhancing salty taste of instant Japanese noodles according to claim 4,

wherein the instant Japanese noodles are wheat noodles, and

wherein the method comprises adding 0.03 to 0.08 g of potassium lactate, 0.05 to 0.20 g of granulated sugar, 0.04 to 0.17 g of citric acid, and 0.004 to 0.15 g of a kelp processed product in terms of kelp dry matter, per a reduced amount of 1 g of salt added to the noodles.

[Claim 6]

The method for enhancing salty taste of instant Japanese noodles according to claim 4,

wherein the instant Japanese noodles are buckwheat noodles, and

wherein the method comprises adding 0.10 to 0.39 g of potassium lactate, 0.03 to 0.13 g of granulated sugar, 0.003 to 0.063 g of citric acid, and 0.06 to 0.25 g of a dried bonito processed product in terms of dried bonito dry matter, per a reduced amount of 1 g of salt added to the noodles.