In one aspect, the present invention refers to a viscous nutritional composition comprising 0.1 to 1.0% by weight of a water-absorbing dietary fiber relative to the nutritional composition, wherein the composition has a property such that the viscosity thereof is increased by a heat treatment, wherein the viscosity of the composition prior to said heat treatment is 5 to 300 mPa·s, wherein the viscosity of the composition prior to said heat treatment is measured at 45 to 85°C and 12 rpm using a spindle type rotational viscometer, and wherein the viscosity of the composition reaches 300 to 6700 mPa·s by subjecting the composition to said heat treatment and then to storage at a temperature equal to or below normal temperature of 15 to 25°C for 1 to 90 days, wherein the viscosity of the composition that has been subjected to said heat treatment and then stored at a temperature equal to or below normal temperature of 15 to 25°C for 1 to 90 days is measured at 20°C and 12 rpm using a spindle type rotational viscometer.

In one aspect, the present invention refers to a method for producing a viscous nutritional composition, comprising the steps of:

i) preparing a water-absorbing dietary fiber at an amount of 0.1 to 1.0% by weight relative to the nutritional composition,

ii) applying a pressure treatment for homogenization, and

iii) applying a heat treatment,

wherein the viscosity of the composition before the heat treatment is 5 to 300 mPa·s, wherein the viscosity of the composition before the heat treatment is measured at 45 to 85°C and 12 rpm using a spindle type rotational viscometer, and the viscosity of the composition after the heat treatment and storage at a temperature equal to or below normal temperature of 15 to 25°C for 1 to 90 days is 300 to 6700 mPa·s, wherein the viscosity of the composition after the heat treatment and storage at a temperature equal to or below normal temperature of 15 to 25°C for 1 to 90 days is measured at 20°C and 12 rpm using a spindle type rotational viscometer.

In one aspect, the present invention refers to a method for producing a viscous nutritional composition, comprising the steps of:

i) preparing a water-absorbing dietary fiber at an amount of 0.1 to 1.0% by weight relative to the nutritional composition,

ii) applying a pressure treatment for homogenization, and

iii) applying a heat treatment,

wherein the viscosity of the composition before the heat treatment is 5 to 300 mPa·s, wherein the viscosity of the composition before the heat treatment is measured at 45 to 85°C and 12 rpm using a spindle type rotational viscometer, and the homogenization treatment pressure in the step of applying the pressure treatment for homogenization is 10 to 100 MPa, and a viscosity (20°C) of the composition after the heat treatment and storage at a temperature equal to or below normal temperature of 15 to 25°C for 1 to 90 days is 300 to 6700 mPa·s, wherein the viscosity of the composition after the heat treatment and storage at a temperature equal to or below normal temperature of 15 to 25°C for 1 to 90 days is measured at 20°C and 12 rpm using a spindle type rotational viscometer.

Also described herein is:

In the present specification, when the viscosity of the nutritional composition of the present invention that has been subjected to heat treatment and then stored for a certain period of time at a temperature equal to or below normal temperature is expressed as 300 to 6700 mPa·s, it is intended to indicate a range from not lower than the lower limit to less than the upper limit. That is, "300 to 6700 mPa·s" means 300 mPa·s or more to less than 6700 mPa·s.

[0077]

The viscosity of the nutritional composition of the present invention can be measured by a conventional method. As an example, the viscosity can be measured with a spindle type rotational viscometer (20 to 85°C and 12 rpm).

[0078]

The measurement of the viscosity (20°C, 12 rpm) of the nutritional composition of the present invention can be performed in accordance with, for example, "Standard for labeling approval of foods for special dietary uses: Test method for foods for the elderly 3, Viscosity ("How to handle the labeling approval for foods for the elderly", (February 23, 1994, Notice No. 15 by the chief of the Office of Health Policy on Newly Developed Foods, Food Sanitation Division, Environmental Health Bureau, the Ministry of Health, Labour and Welfare of Japan)) ". Specifically, using a spindle type rotational ~~rotating~~ viscometer, the reading is taken two minutes after rotating a rotor. Subsequently, the value thus obtained is multiplied by a coefficient corresponding to this value, and the resulting value is expressed as mPa·s. The measurement is performed at 20 ± 2°C.

[0079]

Further, as other examples, the viscosity can be measured properly or continuously during the production step using an inline viscometer such as a torsional vibration viscometer, an ultrasonic viscometer, and a rotating viscometer.

[0080]

The nutritional composition of the present invention achieves an increasing effect on the viscosity of the composition after heat treatment and storage at a temperature equal to or below normal temperature for a certain period of time, for example 1 to 90 days, for example 7 days due to the effect of a water-absorbing dietary fiber and/or a starch not having been