

# Characteristics of fermented foods

- 1 Microorganisms break down organic compounds using their enzymes to create unique end products.
- 2 Fermentation improves the shelf life of the raw material and creates new nutrients during the fermentation process.
- 3 Due to the process of enzymatic breakdown, it can help with digestion and absorption within the body.

## Our own advantages

We are focusing on the development of senior-friendly new materials, taking into account the consumption, nutritional supplementation, digestion and absorption, and composition of the elderly. We are developing suitable raw materials for our company's unique fermentation method to produce senior-friendly foods. Our company is able to develop the best fermentation materials and produce liquid, paste and powder based on the experiences accumulated through various fermentation processes.



## Fermentation and Senior-Friendly Foods



It is particularly important to absorb amino acids, especially among the nutrients that are easily deficient in the senior generation. Amino acids, which are the basic units

that make up the body, are about 22 types and have a great influence on muscles, bones, nerves, brain, hormones, etc. Such amino acids can be a burden for elderly people whose digestion capacity is reduced when taken in the form of protein. Furthermore, ammonia and urea produced in the process of protein breakdown may be harmful to health. To address these issues, our company ferments without sugar and salt. It is good for health to consume proteins in the form of fermented proteins in the form of amino acids. Also, red ginseng, beans, brown rice germ, etc. can be made into low molecular weight through fermentation, thus increasing the absorption rate in the body.

# Fermented Spirulina Analysis Information

Contains 16 amino acids and 34 beneficial ingredients (Unit: mg/100 g)

Category	Analysis Item	Powder	Paste
Amino acids	Lysine	2390	1306
	Leucine	4227	2192
	Methionine	1093	552
	Valine	2909	1596
	Isoleucine	2542	1372
	Threonine	2497	1292
	Histidine	693	404
	Phenylalanine	2192	1163
	Glycine	2578	1354
	Arginine	3011	1613
	Tyrosine	2003	1059
	Proline	1906	926
	Glutaric acid	7591	3944
	Serine	2510	1286
	Alanine	3951	1991
	Aspartic acid	4706	2425

## Fermented food ingredients-based dishes



# Food Fermentation Specialist



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Development of Senior-Friendly Food Ingredients

Excellent Absorbency



# COMPANY PROFILE

- 2023(Vision)**
  - Expanded the food material business based on fermentation technology, and established a mass production system
- 2022(Present)**
  - Developed the fifth-generation natural seasoning (fermented spirulina) project
  - Upgraded fermented spirulina extract to Version 2 (Food ingredients)
  - Developed fermented spirulina powder for coffee
  - Developed soy meat using fermented spirulina
  - Developed chocolate and cookie products using fermented spirulina
  - Launched MiBello Fermented Spirulina Mask Pack
  - Launched Bithia Spirulina Serum (50 ml)
- 2021**
  - Started mass production of MiBello Fermented Spirulina Amino Acid Soap (mass production achieved)
  - Launched MiBello Fermented Spirulina Soaps (3 varieties)
  - Launched Premium Fermented Vinegar using fermented spirulina
  - Produced Bithia Spirulina Serum and Shampoo through OEM
  - Produced fermented spirulina pills
- 2020**
  - Conducted R&D for and produced fermented spirulina/lactobacillus filtrate
  - Launched Bithia Spirulina Premium Ampoule (30 ml) and Cream (50 ml)
  - Launched MiBello Blue-green Algae Shampoo (500 ml)
- 2019**
  - Improved the amino acid content of fermented spirulina extract, a food ingredient
  - Participated in ISSA Show North America 2018
  - Launched AGM-2, a strong alkali electrolytic reduction water system for household use
  - Participated in FIHAV 2018 - the 36th Havana International Fair with Bio-HT (soil conditioner)
- 2018**
  - Participated in Health Ingredients Japan 2018/Food Ingredients for Taste Japan 2018/Safety & Technology Japan 2018, and proposed food products using fermented spirulina powder
  - Produced/sold MiBello Spirulina Soap
  - Participated in Inter Clean Amsterdam 2018
  - Launched Bithia Blue-Green Algae Serum
  - Participated in IESD China 2018 with AGM1 & Alkamax (strong alkali electrolytic reduction water)
  - Launched AGM-1, a strong alkali electrolytic reduction water maker for Alkamax
  - Launched AGM-1, a strong alkali electrolytic reduction water maker for Alkamax
  - Launched Bithia Blue-Green Algae Serum
- 2017**
  - Launched Bithia, the second cosmetics brand, including independently developed ingredients
  - Conducted R&D for fulvic acid concentrate
  - Produced and sold Alkamax
  - Produced/launched cosmetic products containing RG-M1
  - Launched cosmetics brand MiBello
- 2016**
  - Developed Blue-Green Algae Extract: RG-M1
  - Participated in exhibitions in Laos, Cambodia, and India
  - Commenced business with Bio-HT Hybrid, a premium soil conditioner
- 2015**
  - ALGAE M TECH Co., Ltd. established

Commercialization Success

## SPIRULINA

5th generation natural seasoning



5th Natural Seasoning

### 5th Generation Natural Seasoning (fermented spirulina powder)

Revolution and paradigm shift in seasonings. Meet the new concept of "5th generation natural seasoning" with enhanced nutrients through high-quality protein fermentation of spirulina and preserved umami from various amino acids. It is produced in a powder form that is easy to apply to a variety of "MSG-free" foods, and if you add our "natural seasoning" to various foods, you can consume various nutrients together with the addition of a deep umami flavor.

#### Use of Fermented Spirulina

- Udon & Ramen Soup
- Soybean meat patty (hamburger)
- Seasoning & fish cakes, etc.
- All processed foods
- Spirulina concept franchise business and various health food ingredien

### Features of Spirulina

#### A Place Where Various Nutrients Meet

Balanced consumption of vitamins and minerals is important, but few foods contain them in a balanced and complex form. Commercially available multivitamins and mineral supplements are one solution, but the best way to absorb nutrients is through natural foods. Spirulina, a natural food, contains a variety of nutrients, including vitamins and minerals.

#### Very High Digestion/Absorption Rate

No matter how excellent a nutritional supplement or a food product may be, it is not effective if the digestion and absorption rates are low. With high digestion and absorption rates for various nutrients, Spirulina has been selected as a next-generation food by NASA.

#### Natural Alkaline Food

The alkalinity of Spirulina is 40 - 45, which is three to four times that of general vegetables (10 - 15), twice that of spinach, 20 times that of milk, three times that of chlorella, and four times that of soybeans. Therefore, Spirulina can help improve an acidic constitution and create a neutral constitution.

#### High in Protein, Low in Calories (Protein Content: Min. 60%)

It is not easy to find the perfect protein we want. Meat on its own is a whole protein, but eating it carries the risk of excessive fat intake. When it comes to plant-based proteins, we need a variety of different sources. The protein content of beef is 22%, soybeans 37%, chicken 24%, fish 22%, and milk powder 36%, but spirulina contains more than 60% protein. The important point here is which high-protein foods have the right balance of essential amino acids. Spirulina contains all eight essential amino acids.

Commercialization Success

## SPIRULINA

Fermented extract LIQUID & powder

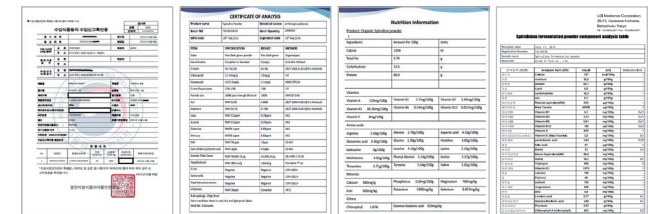
### Fermented Spirulina



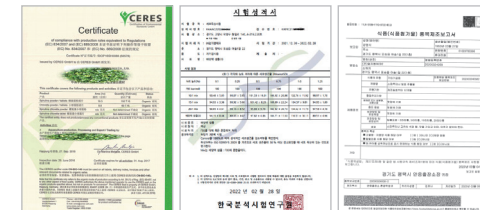
Spirulina Powder Fermented Spirulina Powder

The protein contained in spirulina requires a process of conversion to amino acids in the human body. In addition, complete absorption of this nutrient is difficult. However, through fermentation, microorganisms break down the protein into amino acids and, as a result, the absorption rate is increased. As such, through the fermentation process, a greater variety of nutrients are supplied.

### Quality Control and Certificates



KFDA Report Certificate Analysis Information Nutrition Information Analysis of Active Components



Organic Certification Toxicity Test Report Item Manufacturing Report



After Before