



Soy Miliome

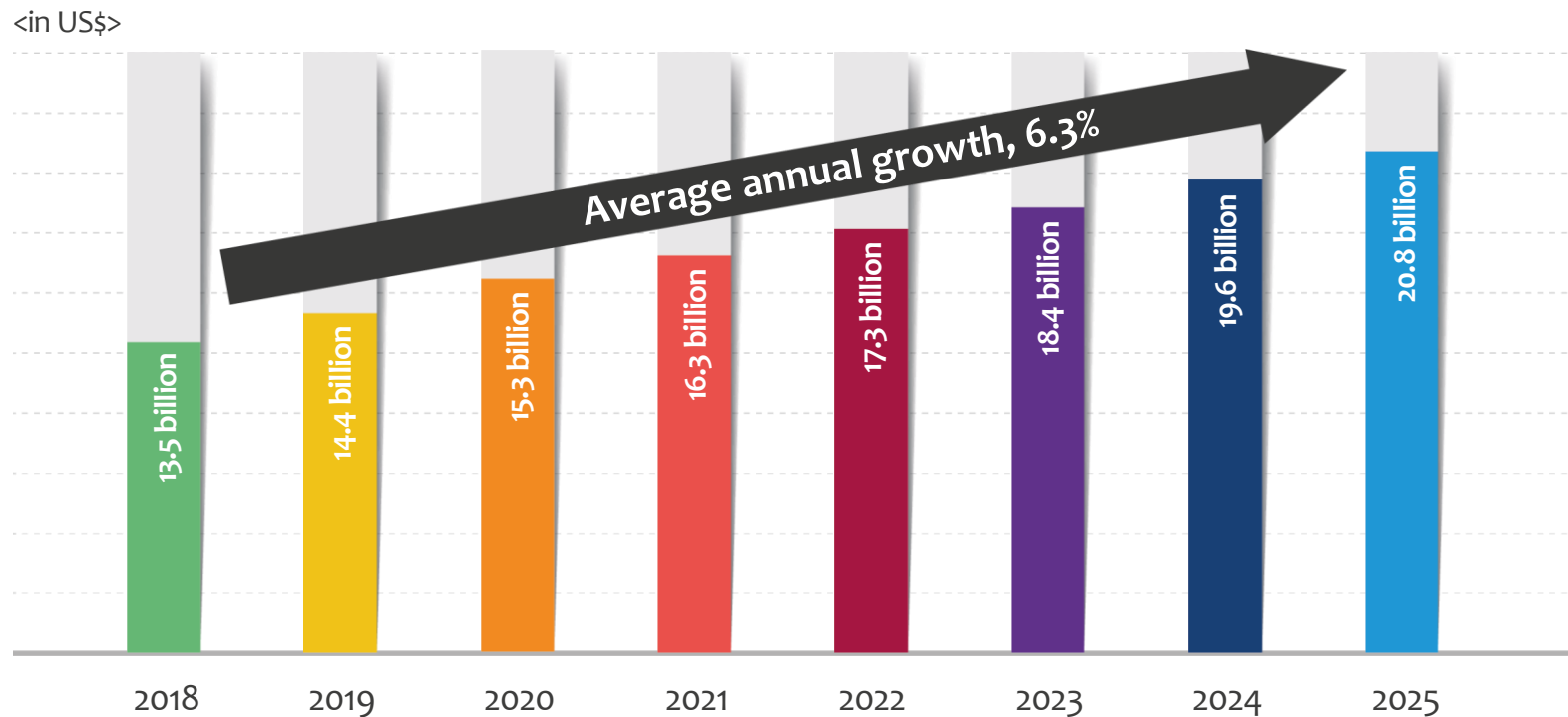
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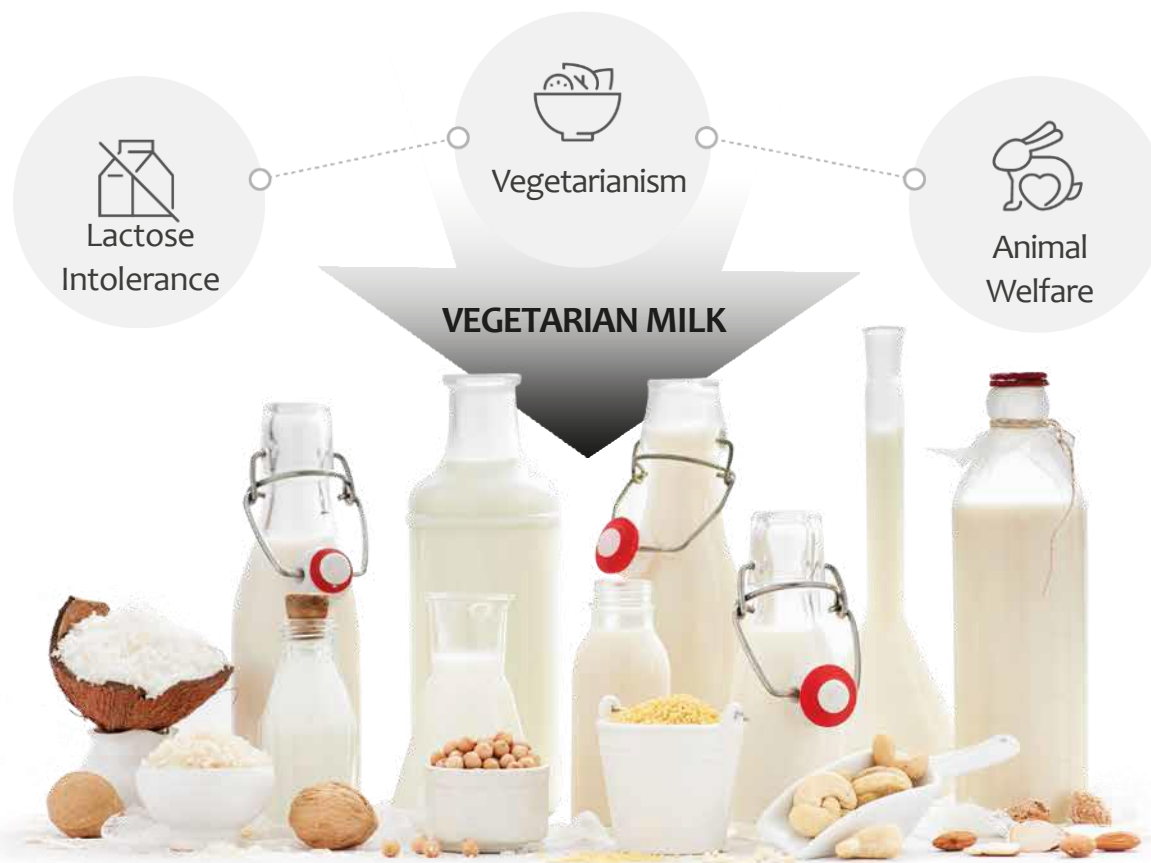
Popularity of Vegan Cosmetics

World Vegan Cosmetic Market (2018~2025)



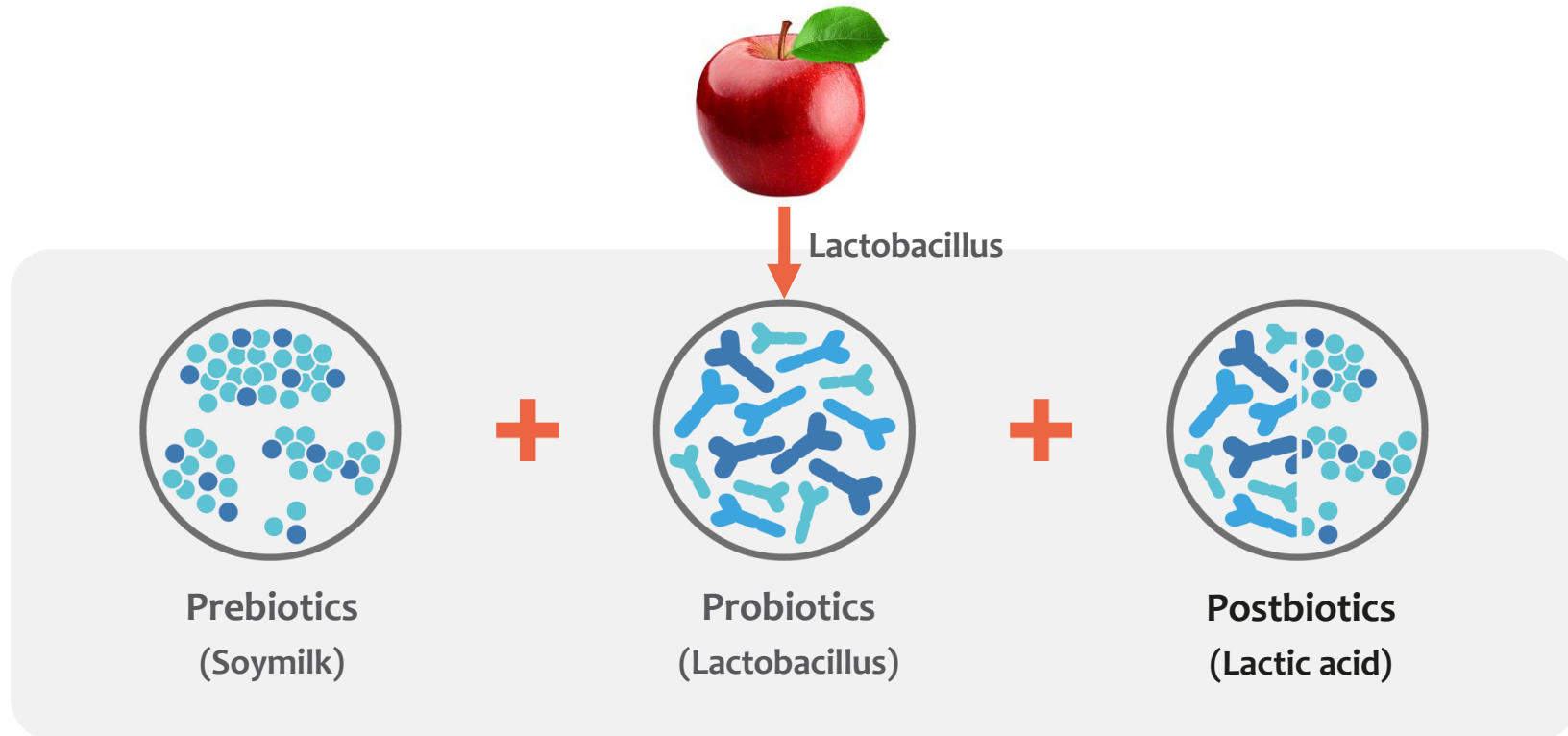
By US Grand View Research

Vegetarian Milk, in Replacement of Cow Milk



Recently, **vegetable milk** is consumed in replacement of cow milk for the reasons such as vegetarianism, lactose intolerance, animal welfare and etc.

Soy Miliome, a Fermented Vegan Product



Soy Miliome, a fermented **VEGAN** ingredient
with the combination of prebiotics, probiotics, and postbiotics

Soy Miliome

INCI Name

Lactobacillus/Soy milk Ferment Filtrate

IECIC Name

Lactobacillus/Soy milk Ferment Filtrate



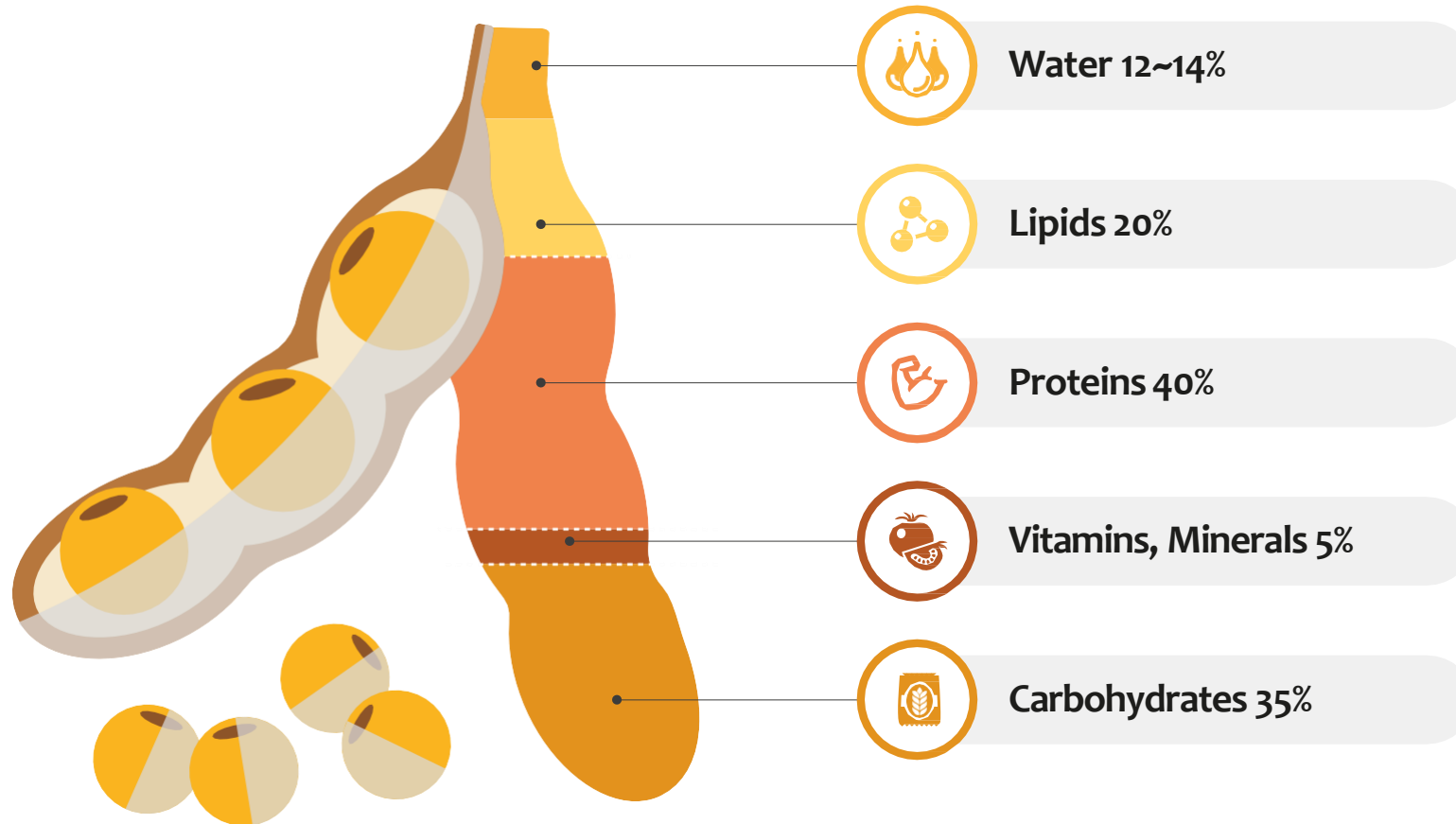
Soybean

Soybean is native to East Asia but is now widely grown in the United States, Brazil and Argentina for its edible bean. The bean is a good source of protein and is rich in dietary fiber and variety of phytochemicals and micronutrients, including phenolics, isoflavones (especially daidzein and genistein, which are also known as phytoestrogens), phytic acid, dietary minerals, and vitamins B and K.

Soybean seed extract is used in cosmetics due to its various beneficial effects on skin. Isoflavone present in soybean has been reported to have anti-oxidant activity and protect the skin from UV damage. Some of the proteins found in soybean induce skin depigmentation by reducing melanin transfer from melanocytes to keratinocytes. These proteins also have anti-aging effects; they are reported to protect elastic fibers from degradation by elastase. Soybean seed extract also showed hair growth effect by stimulating hair follicular cell growth.



Soybean

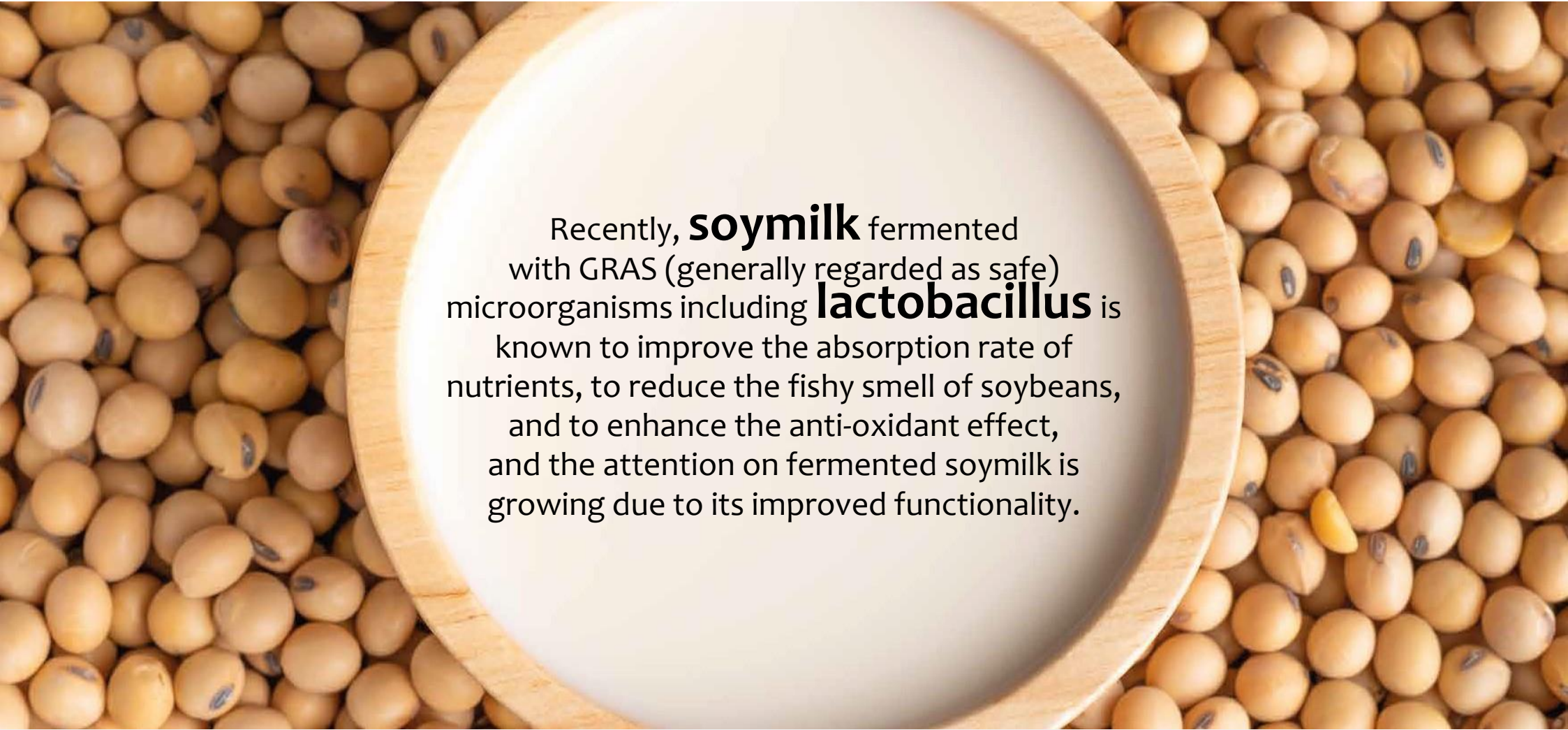


Soy milk

- Soy milk is full of nutrients such as proteins, lipids, and vitamins. It is becoming more and more popular among modern people who are exposed to the risk of various types of lifestyle diseases.
- Soy milk is a source of lecithin and vitamin E. Unlike milk, it contains less cholesterol. It is abundant in essential amino acids, essential fatty acids, and minerals.
- Soy milk does not contain lactose, and it is recognized as a high-protein milk substitute for infants with lactose intolerance and allergies.



Soymilk

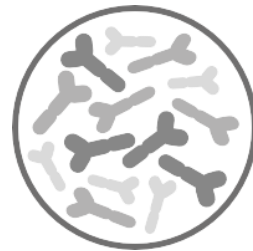


Recently, **soymilk** fermented with GRAS (generally regarded as safe) microorganisms including **lactobacillus** is known to improve the absorption rate of nutrients, to reduce the fishy smell of soybeans, and to enhance the anti-oxidant effect, and the attention on fermented soymilk is growing due to its improved functionality.

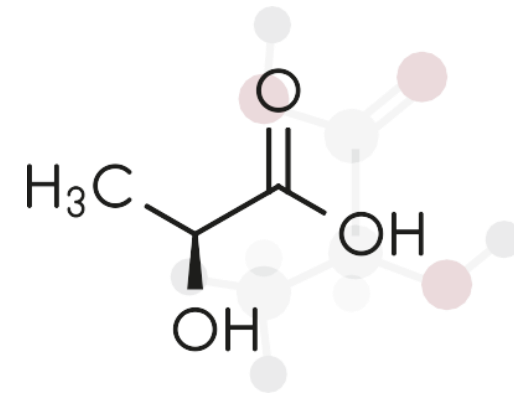
Soy Miliome – Manufacturing Process



Soymilk



Probiotics
Metabolism



Lactic acid
(metabolites)

Soy Miliome is the extract of soybean milk fermented with **probiotics, lactobacillus**, and contains **lactic acid** as the metabolites by fermentation.

Reference Article

Table 6. Contents of organic acids in soymilk yogurt fermented with *L. plantarum* B19 and *L. acidophilus* CSLA

(Unit: mg/100g)

Samples	Lactic acid	Citric acid	Formic acid	Acetic acid
<i>L. plantarum</i> B19	1,074	113	168	ND
<i>L. acidophilus</i> CSLA	1,076	111	284	ND

According to the reference article, when soymilk is fermented with *Lactobacillus plantarum* B19 and *Lactobacillus acidophilus* CSLA, the amount of lactic acid produced by both strains is 1079 mg and 1076 respectively, which was much higher than the amount of other organic acids produced

Reference: J East Asian Soc Diet Life, 29(3), 2019, p. 198-208

Reference Article

Inflammation in the female reproductive tract (FRT) is associated with increased HIV transmission. *Lactobacillus* spp. dominate the vaginal microbiota of many women and their presence is associated with reduced HIV acquisition. Here we demonstrate that lactic acid (LA), a major organic acid metabolite produced by lactobacilli, mediates anti-inflammatory effects on human cervicovaginal epithelial cells. Treatment of human vaginal and cervical epithelial cell lines with LA (pH 3.9) elicited significant increases in the production of the anti-inflammatory cytokine IL-1RA. When added simultaneously or prior to stimulation, LA inhibited the Toll-like receptor agonist-elicited production of inflammatory mediators IL-6, IL-8, TNF α , RANTES, and MIP3 α from epithelial cell lines and prevented IL-6 and IL-8 production by seminal plasma. The anti-inflammatory effect of LA was mediated by the protonated form present at pH \leq 3.86 and was

Lactic acid mediates anti-inflammatory effect by inhibiting inflammatory factors in human cells.

Reference: Mucosal immunology, 10(6), 2017, p.1480-1490

Origin of Lactobacillus

Lactobacillus plantarum

Microorganism used in the fermentation of soymilk for **Soy Miliome** is *Lactobacillus plantarum* isolated from **apple**



Composition

CERTIFICATE OF COMPOSITION

Product Name Soy Miliome

We, The Garden of Naturalsolution, hereby certify that Soy Miliome is composed of raw materials as follows:

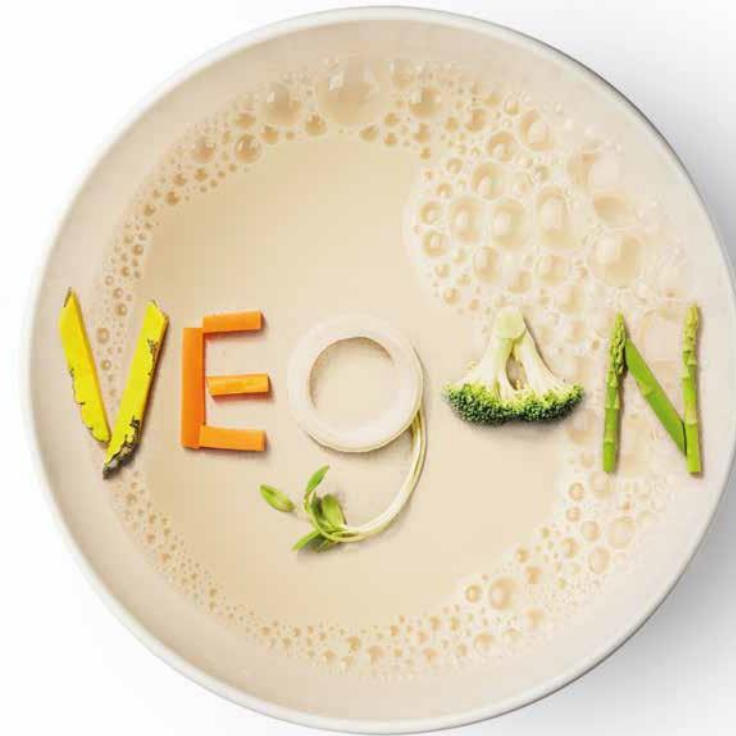
INCI Name	Content %
Lactobacillus/Soymilk Ferment Filtrate	90
Pentylene Glycol ¹⁾	10

¹⁾Pentylene Glycol in this product is naturally sourced

➤ This ingredient is based on the International Cosmetic Ingredient Dictionary of Personal Care Products Council and Cosmetic Ingredient Dictionary of Korea Cosmetic Association.

- **Pure fermented product** with no single drop of water added
- Contains **lactic acid** for more than 100 ppm

Soy Miliome Is



“ A **VEGAN** product with no animal-originated ingredients ”

Product Information

- ❖ **Product Name:** Soy Miliome
- ❖ **INCI Name:** Lactobacillus/Soymilk Ferment Filtrate
- ❖ **IECIC Name:** Lactobacillus/Soymilk Ferment Filtrate
- ❖ **Dosage:** 1 – 5%
- ❖ **Formulation:** Add to the formulation when the temperature is lower than 55°C.
Recommended to add after the cooling process.
- ❖ **Storage:** Avoid direct light or UV.
Keep it in a dry area at room temperature.

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Nature, Go with
NaturalSolution!

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