Date: 23rd October, 2019



PRESS RELEASE

Tavelmout Biofarm (B) Sdn Bhd Launch

Pioneer Spirulina Cultivation and Processing Facility in Brunei Darussalam

KAMPONG TUNGKU-RIMBA, BSB (22nd October 2019):

On the 22nd October 2019, Tavelmout Biofarm (B) Sdn Bhd (TVMB) will be holding the Official Launching Ceremony of our production facility at Darussalam Enterprise Bio-Innovation Corridor Industrial Park situated in Kampong Tungku-Rimba. Officiating the ceremony will be Yang Berhormat Dato Seri Setia Awang Haji Ali Bin Apong, Minister of Primary Resources and Tourism.

TVMB is a pioneer in the large-scale cultivation of spirulina using PhotoBioReactor (PBR) in the world. Compared to the conventional cultivation utilizing open raceways which are more susceptible to environmental and contamination factors, our scientists and engineers have devoted years of research and development to optimize the PBR cultivation, which resulted in the maximum production yield at a lower production cost.

TVMB is proud to introduce our locally produced "Tabérumo" product. Tabérumo is the world's first frozen raw spirulina that satisfies Japanese rigorous and stringent food safety standards and is sold mainly in Japanese market by our parent company Tabérumo Corp. The strict safety and hygiene control system of our processing facility enable us to create a high-quality spirulina which is safe to be consumed raw.

Date: 23rd October, 2019

As Tabérumo is a product which maximizes the strength of spirulina's odorless fresh taste and rich nutrients, it can be mixed with all kinds of food and enjoyed by young families, athletes and beauty conscious women. TVMB has started exporting the product to Japan since September 2019. Distribution to the Japanese consumers will be done through Tabérumo Corp.

About spirulina

• High in Nutrient

Spirulina, also scientifically known as *Arthrospira platensis*, is a cyanobacterium often forming helical structure and has been long recognized as the "King of Superfood" due to its high and well-balanced nutrition. In fact, NASA has stated that "The nutritional value of 1 kg spirulina is equivalent to 1,000 kg of assorted fruits and vegetables", and also, UN has lauded spirulina as "The best food for the future" in the World Food Conference. It is also noteworthy that spirulina contains significant amount of powerful antioxidant and anti-inflammatory component, phycocyanin. The blue extract from spirulina was recently certified as a natural blue coloring for human consumption by the FDA and has not only been increasing the variety of applications and but been also expanding its market very rapidly since then. Further, unlike common conventional vegetables, spirulina does not contain cellulosic cell wall, and therefore, easily digestible.

In short, spirulina

- > contains high amount and well-balanced nutrients
- > is rich in profitable antioxidant phycocyanin
- > is easily digestible (= efficient nutrient uptake)

• Sustainable Production

Due to increasing population and improving quality of life (or GDP per capita), some researchers discuss the possibility of significant shortage in food, especially in protein, which can be expected around 2030-2035. There is no practical counter to increase the food supply and primary production with the conventional agriculture due to the limitations in available/suitable land and fresh water. In contrast, cultivation of spirulina is achieved without arable land and freshwater, and in addition, the production yield is significantly greater than that of conventional agriculture. Therefore, it has been highly expected to be one of the potential solutions for the forecasted shortage in protein and food in the near future.

Date: 23rd October, 2019

About Tabérumo

The world first high-quality raw spirulina products

Although spirulina has been well known for its high nutritional value as stated previously, conventional spirulina products, in which significant quantity of heat-sensitive nutrients were lost through heat sterilizing treatment, have failed to take its advantages effectively. In contrast, Tabérumo, the first high-quality raw spirulina product in the world, offers full nutrition (c.a. 1.4 times of that in the conventional heat-dried products) and odorless fresh taste spirulina originally had by applying proprietary cultivation/processing/freezing technologies and strict safety/hygiene standards. Further, Brunei Darussalam, where stable and warm temperature, rich freshwater resource, access to surrounding global market are available but the land suitable for conventional crop production is limited; allows for stable, high-quality/yielding, economic, and more sustainable production of spirulina. As a result, we believe that this very strategic production of Tabérumo spirulina at Brunei will fulfil a leadership role in filling the gap of the pending food/protein demands of the world in the near future.

Halal

Currently, there is no halal certified raw spirulina available in the world. We are in the process of getting the approval for our halal application and once certified, Tabérumo made in Brunei will add significant value to its products. In addition, efforts are being made to register the Brunei halal brand in Middle East, Europe and the rest of ASEAN. Synergistically, certification of Tabérumo spirulina in Brunei Darussalam will increase the portfolio of high-quality halal products produced locally in Brunei Darussalam.

Date: 23rd October, 2019

About the projected export of the factory -

- 1. In the first year, TVMB is targeting to produce 6 tons per month. We will be increasing the production capacity yearly, and the maximum production volume after expansion of the facility is expected to reach 1,000 tons.
- 2. Although our initial main target market is Japan, we are also aiming to export our product globally. As a future plan, in addition to continuous marketing in Japan, we will be aiming to expand to other overseas markets including the booming global halal market after the approval of our halal certification from Brunei Darussalam.

Date: 23rd October, 2019

About Tavelmout Biofarm (B) Sdn Bhd -

• Tavelmout Biofarm (B) Sdn Bhd Established

: July, 2018

• Headquarters : Bio Innovation Corridor Plot No. 21, Spg 189, Jln Dang

Kumala, Kg Tungku, Mukim Gadong A, Bandar Seri

Begawan, BE2119, Brunei Darussalam

Representative : Satoshi Suzuka, Managing Director, Factory Director

• Business overview: Production and export of Spirulina

Tavelmout Biofarm (B) Sdn Bhd (TVMB) is a newly established company in Brunei Darussalam since 13th July 2018, as a part of CHITOSE Group. TVMB is a pioneer in large-scale cultivation of spirulina using PhotoBioReactor (PBR) in the world. By cultivating with PBR, we can achieve high productivity in cultivation of spirulina as compared to the other conventional cultivation methods.

About Tabérumo Corp.

https://www.taberumo.jp/en/

• Tabérumo Corp. Established : July, 2014

• Headquarters : Kawasaki, Kanagawa

• Representative : Toshiya Sasaki, President and Managing Director

Business overview: Developing cultivation technologies and new applications of spirulina

for its commercial production and marketing.

Tabérumo Corp. is one business entity of a group of biotech companies, the "Chitose Group". Odorless fresh taste raw Spirulina are produced and commercialized using the efficient cultivation technologies developed by Chitose Laboratory Corp., which is the research entity of Chitose Group. In addition, in order to use spirulina as a protein source in various food products, original technologies have been developed and applied for product development, commercialization, and marketing.

Tabérumo Corp had received a capital injection from INCJ, Ltd., a Japanese Government fund and Mitsubishi Corporation since May 2018.

Date: 23rd October, 2019

About CHITOSE GROUP

https://chitose-bio.com/

• Managing Company : CHITOSE BIO EVOLUTION PTE. LTD.

• Founder & CEO : Tomohiro Fujita Ph.D.

• Group Management and Staff : Approx. 120 members. 8 different nationalities

A group of biotechnology start-ups (11 in total as of the end of September 2019) that mainly operates in Japan and Southeast Asia) which aims to leave humankind a prosperous environment to live for over a thousand years. CHITOSE GROUP is creating new values in the fields of agriculture, medical, food, energy, chemistry and others through "Technology development capabilities in the biotechnology field by constantly promoting economic rationality" and "Business development capabilities for drawing a path forwards commercialization by understanding the essence and limitations of biotechnology".

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Satoshi Suzuka, Managing Director,