New Zealand natural health products in Singapore and Southeast Asia



Introduction

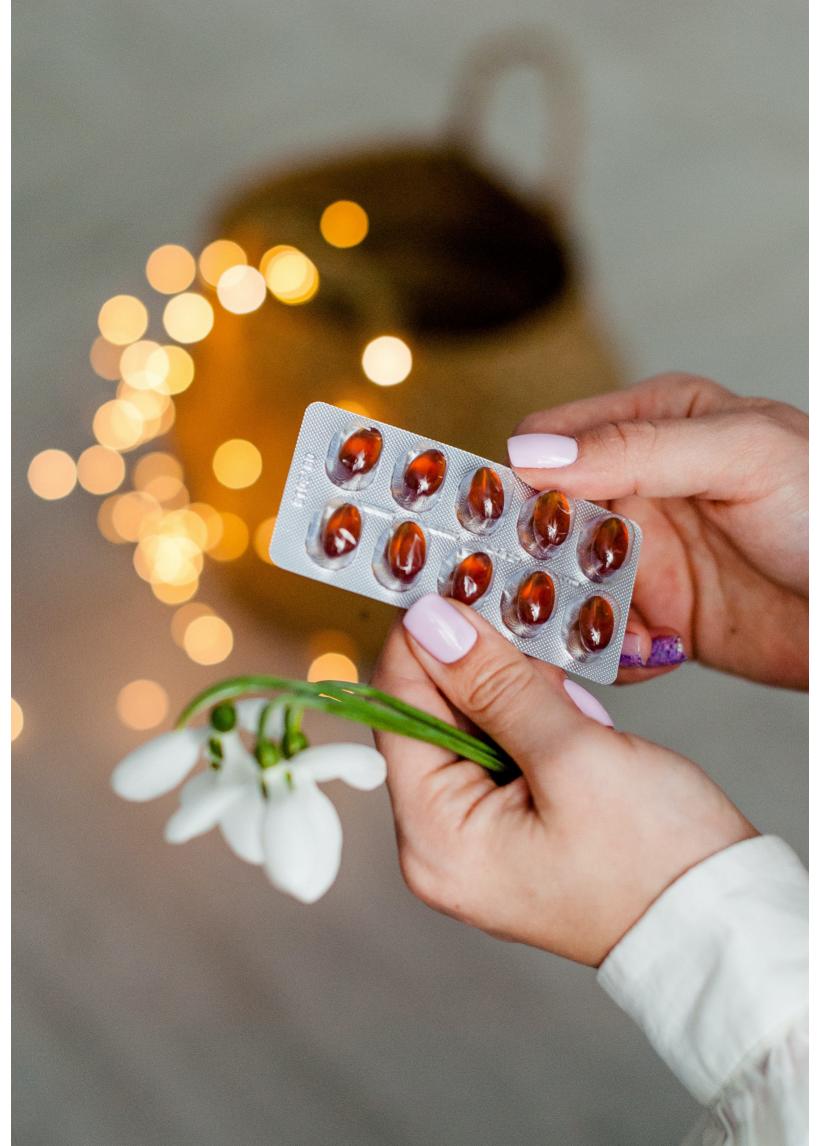
The global Food and Beverage industry is currently growing at around 5% a year with worldwide consumer spending on food products expected to reach US\$5.8 trillion by 2030.

New Zealand is a major food exporter, with food products valued at around \$40 billion shipped to international markets in 2019. The high value segment of food exports is worth just over \$2.8 billion, having grown 8% since 2018. In July 2020, in response to managing the economic impact of COVID-19, the New Zealand Government announced plans to increase food and beverage export earnings by \$44 billion over the next decade while simultaneously protecting the environment and growing jobs.

Natural health products are intended to support health and wellness, They are made from natural ingredients or equivalents such as synthetic vitamins and are often referred to as nutraceuticals or functional foods. Natural health products include herbal remedies (such as capsules, tonics, and skin creams), vitamin and mineral supplements, traditional Māori remedies, traditional Chinese medicines (TCM), homeopathic remedies, and some remedies based on animal products, such as deer velvet and fish oil capsules. Health and wellness product categories include natural health products, as well as functional foods, organic foods, and food intolerance products.

There are many opportunities available for New Zealand producers of natural health products in Singapore and the wider Southeast Asia (SEA) region. This document highlights those opportunities and provides an overview of some of the companies already operating in the highly competitive market. Finally, it presents the key challenges for New Zealand companies seeking to supply the sector.

A natural health product (NHP) is a product that is directly formulated from organisms and substances (such as plants, algae or minerals) found in nature and whose primary purpose is to provide a health benefit to the person who uses it. In the industry, NHPs are sometimes reffered to as nutraceuticals, supplements or micronutrients. These terms are used interchangeably.



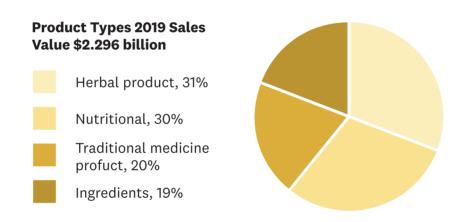


The New Zealand natural health products sector

Industry overview

New Zealand's natural health products sector is diverse, with more than 10,000 types of products reported as sales in 2019. These include nutritional supplements, herbal products, vitamins, minerals, functional foods, ingredients suppliers, traditional medicines, therapeutic skin care, honey, probiotics, nutritional oils, biologicals, bio actives, natural wound care, oral care, homeopathy, and aromatherapy. The sector is valued at around \$2.29 billion in total domestic and international sales and represents 5.7% of New Zealand's annual food and beverage exports. The four largest product groups accounted for almost half (5,661) of the different product types according to a survey conducted by NZ Natural Health Products in 2019 (Figure 1).

Figure 1 Product Type Breakdown; Source Natural Health Products Association



New Zealand's competitive advantage

New Zealand's focus on agriculture and food production combined with its natural environment and wealth of unique resources, has led to a lucrative, thriving and growing natural health and nutraceutical sector.

New Zealand's long track record of identifying and utilising the medicinal and nutritional uses of natural products include harnessing the antibacterial properties of Mānuka honey, identifying a non-calorific natural sweetener through intensive R&D, and developing the easier-to-digest A2 protein milk. The demand for New Zealand's natural health products is partly attributed to growing health awareness, rising incomes, and New Zealand's clean and green reputation.⁶

Evidence-based science

The industry is underpinned by extensive collaboration across science and research organisations, crown institutes, government departments and commercial businesses who regularly partner across a wide range of initiatives to research the science of natural health products. New Zealand has a well-established and extensive science and research industry, with Crown Research Institutes (CRIs) and government-funded organisations working to develop the evidence-based science used to strengthen the industry. These include three CRIs: Plant and Food Research, AgResearch, Environmental Science Research (ESR); and the Universities of Auckland, Otago, Massey and Lincoln. The Riddet institute, a Centre for Research Excellence (CORE) and the High Value Nutrition | Ko Ngā Kai Whai Painga National Science Challenge also provide access to government-funded science for natural health products.

Innovation and R&D is key to the sector

Producers of New Zealand natural health products continually look for ways to innovate, grow and diversify and are backed by relatively high rates of investment in R&D across all parts of the industry. Many companies engage in partnerships within the New Zealand science ecosystem to demonstrate the efficacy of their product's health-based claims.

- 39% of natural health products firms undertook R&D activities in 2019,
- significantly higher than the New Zealand average of 10% of firms.
- 44% of all New Zealand natural health products firms spent
 5% or more
- of turnover on R&D in 2019, double what it was 2014.

Case study: Anagenix

New Zealand company, **Anagenix**, is an ingredient supplier for functional food, supplement and nutraceutical producers. Anagenix has partnered with **Plant & Food Research** to investigate the potential of BerriQi®, a Boysenberry and apple product developed to assist the repair of lung damage caused by air pollution.

This research, funded through the High-Value Nutrition | Ko Ngā Kai Whai Painga National Science Challenge includes clinical trials at the University of Otago, Wellington and utilizes the Global Energetics and Environmental Simulation Suite at the Centre for Translational Physiology. With air pollution a significant threat to human lung health in several Southeast Asian cities, the research aims to add evidence for the use of concentrated boysenberry shots supporting the respiratory immune system against damage caused by the inhalation of particulate matter.^{7 8}



Opportunities for natural health products in Singapore and Southeast Asia

Consumer demand

Singapore offers a significant opportunity for New Zealand companies targeting the growing high value sector of nutraceuticals. There is strong demand from consumers for nutraceuticals and natural food products to support their health, while the effects of the COVID-19 pandemic have increased demand for products which support the immune system. Additionally, rising proportions of older populations have created strong consumer interest in products assisting with ageing and cognitive decline.

There will be wider acceptance of a range of products as science-based research becomes available and as consumers become increasingly concerned about diet inadequacy. Products considered food sources with nutritional and medicinal advantages will be increasingly sought by consumers, as the impact of chronic diseases such as type two diabetes, hypertension, obesity and chronic obstructive pulmonary disease affect the health outcomes of ASEAN populations.

Market research conducted in August 2019 predicted that the market for nutraceuticals in ASEAN would continue to grow at a compound annual growth rate (CAGR) of 7.4% in the five years to 2025. Earlier forecasts in 2018 estimated the market was valued at US\$75b and would grow to \$140bn by 2027.9 Other data show the market in ASEAN countries growing at CAGR of 8.4%.10

The ASEAN countries with highly commercialized markets, including Singapore, Thailand, Malaysia, and the Philippines have well-established distribution channels to support the increased consumer demand for nutraceutical products.

Drivers of growth for nutraceuticals

Some of the growth in the Asia-Pacific region for nutraceuticals and natural health products has been due to ageing populations and the adoption of devices to monitor lifestyle and habits. As governments, for example in Singapore, conduct research into the effects of dietary patterns. Urban consumers in the region will drive the growth of nutraceutical use, with around 40% of the ASEAN population consuming supplements daily. This represents a significant opportunity for New Zealand manufacturers to both introduce new ingredients and sell finished products into the region.

The treatment of malnutrition, osteoporosis and cognitive decline in the elderly is also encouraging the adoption of nutraceuticals to support healthcare in Southeast Asia. Additionally, in some markets, like Singapore, the health and fitness boom has led to more consumers using functional foods to support their fitness goals. Increased obesity in the region is leading to growth in dietary supplements. These trends appear likely to intensify in the next five years with the use of vitamins and innovative enriched food products expected to accelerate in demand as consumers increase spending on health through natural health products.

There are challenges to address when supplying nutraceuticals to ASEAN countries and these are highlighted in the following section which provides research insights from nutraceutical stakeholders in Singapore.



Market insights from buyers in Singapore

- Science-based evidence is essential
- Consumer demand for products to support immunity has grown with the COVID-19 pandemic
- Plant-based products are in demand
- Traditional Chinese medicine and other traditional knowledge is highly valued
- Major brands are looking for ingredients
- Large volumes of ingredients are supplied from India. Curcumin and turmeric are popular for anti-inflammatory properties
- Specific cultural products aligned with local tastes.
 (eg, Jamu a herbal drink blending fresh turmeric, ginger, lemon, water and sweetened with honey and is marketed as the perfect immunity booster in Indonesia)
- Sports nutrition is a growing category in SEA especially since 2018 as young people focus on health
- Demand for active ageing products that can offset cognitive decline, improve bone density and reduce muscular inflammation continues to grow across SEA
- Consumers are less trusting of eco-friendly brands for cleaning products since COVID-19

Consumer insights are critical to new product development

Cultural diversity and the varying needs of consumers influenced by both traditional practice and global trends, means collecting consumer insights and doing market research with end users is critical to successful product development in ASEAN markets. New Zealand companies should use market research to inform them of local needs when developing products that target SEA consumers.

In Singapore most major pharmaceutical and natural health companies have Manufacturing and R&D facilities in market. Many have facilities in other SEA countries (see **Competition**) and some companies focus on a single novel ingredient and sell to distributors with supply arrangements covering the region. Companies like Amway and Herbalife use multi-level marketing (MLM) (direct to consumer) distribution networks. Some of these have operating over 25 years.

Consumer education and cultural awareness about health concerns is key to growing potential demand for specific nutraceutical products that help with age-related brain impacts. The product channels for such products are physicians and health care providers especially in countries such as Thailand, Malaysia, and Singapore.

Insights from New Zealand suppliers and manufacturers of NHPs

- Some companies are well established in SEA with distribution in retail outlets or via distributors
- Larger companies could look to manufacture in Malaysia as their brand grows and they gain wider distribution in SEA.
- The adoption of different product formats such as gummies is being investigated through market research with end consumers and distributors
- Increased demand for products to support immunity in both in SEA and NZ since COVID-19 began.
- Focal markets for New Zealand companies are Vietnam and Malaysia
- Growing awareness of science supporting the use of New Zealand blackcurrants and boysenberries
- Some innovative NZ companies operate in partnership with global /local partners licensing their IP and science to build market share via local, exclusive distribution channels.





Competition

Many companies operating in this sector in SEA are highly sophisticated, well-resourced MNCs headquartered in the US or Europe. Some have access to teams of over 600 scientists. Major suppliers in the nutraceutical sector in SEA are the US, India, Korea and Japan.

Case study: India

India is investing significantly in the nutraceutical sector to attract new MNCs. A report from the US suggests that the India nutraceutical market will hold 3.5 percent of the global nutraceutical market by 2023 and that Foreign Direct Investment in India is attracting significant US companies to invest in the sector in India.

The nutraceuticals market in India is expected to grow from an estimated \$4 billion to \$18 billion by the end of 2025. The dietary supplements segment constitutes 65 percent of the nutraceutical market and is growing at a rate of 17 percent. This is expected to increase 22 percent per year, as preventive health becomes a major focus post Covid-19.¹¹



Research networks and nutraceutical companies in Singapore

Within Singapore there are many MNCs with R&D facilities used to develop products that meet local needs. The Singaporean Government set up Biopolis, a dedicated hub to attract MNCs and to provide space for biomedical research, food and consumer R&D. Companies that operate in the nutraceutical sector located at Biopolis and/or in Singapore include Procter & Gamble, Abbot Nutrition, GSK, Danone, and Kerry Ingredients, each with R&D facilities. Biopolis is located near to an extensive research network that includes:

- the Agency for Science, Technology and Academic Research, (A*STAR)
- National University of Singapore
- Singapore Institute of Technology (which hosts Massey University)
- National University Hospital Singapore (NUHS)
- Singapore Science Park
- Ministry of Education
- ESSEC Business School
- INSEAD Business School
- Fusionopolis

Fusionopolis was developed in 2013 to encourage interdisciplinary research among private and public institutions. It provides facilities, infrastructure and an environment to boost industry growth for the ICT, media, physical sciences and engineering sectors.¹²



ADM

A global leader in human and animal nutrition and the world's premier agricultural origination and processing company, ADM is headquartered in Chicago, Illinois. Their range of products includes botanicals and MCT oils as well as nutraceutical and functional foods based on plant-based ingredients. Their products include therapies for cognitive, heart and immunity health. ADM in Singapore serves Southeast Asian markets including the new emerging markets of Indonesia, Philippines, Vietnam and Thailand. ADM employs nearly 120 people in Singapore. 14

Cargill Inc

With a team of 155,000 professionals in 70 countries Cargill draws together the worlds of food, agriculture, nutrition and risk management. For more than 155 years, they have helped farmers grow more, connecting them to broader markets and advancing nutrition, food safety and sustainability. Cargill in Singapore: Singapore is the regional hub of Cargill in Asia-Pacific. It was established in Singapore 1981 and today has a team in Singapore of around 500 employees. Four of Cargill's business units are headquartered in Singapore alongside a number of regional and global trading desks. 16

Royal DSM NV

Royal DSM is a global, purpose-led, science-based company active in nutrition, health and sustainable living. Tosk in Singapore: In Singapore in 2017, DSM signed a three-year collaboration with Singapore Institute of Technology Food Technology students and staff allowing them to access DSM's Singapore Nutrition Innovation Centre (NIC) with its state-of-the-art industry facilities and expertise during their course of study. Through the Industry Lab, students have the chance to use the latest technology in real-life applications for the food and nutrition sector, including dietary supplements, dairy, food and beverage segments. They are exposed to the prototyping and product development process. This includes time with a UHT pilot plant for food fortification, a sensory lab to create desired flavour profiles, and climate-controlled chambers to test product stability under different environments. 18

Kerry Ingredients

Kerry Ingredients has become a leading player in the global food and beverage industry. Kerry Taste & Nutrition is the global leader in the development of taste and nutrition solutions for the food, beverage and pharmaceutical market. The company has a broad technology foundation, customer-centric business model, and industry-leading integrated solutions¹⁹

Kerry in Singapore: Kerry has a regional Technology and Innovation Centre at Biopolis and in Indonesia Their focus is on working with customers to make "better tasting, more authentic products that meet vital nutritional needs for people in all parts of the world and at all stages of life". Products range from lactose, functional excipients, coatings, media and supplement cell culture systems. They run graduate programmes in Asia Pacific from Singapore guaranteeing roles at Kerry by providing hands-on experience in a fast pace, dynamic environment with unlimited career potential. In 1997 Kerry purchased ingredients company SDF in Malaysia Kerry Group spending £6.6m in Malaysian acquisition. The technical and R&D support for Asia is provided from Singapore.²⁰

Fonterra Milk Products

Fonterra Milk Products is the New Zealand dairy company's ingredients and solutions brand with facilities in 14 global locations and with an extensive reseller network. Fonterra has customers in over 130 countries and as the world's leading dairy exporter, is able to provide customers access to an international supply chain for many of the nutraceutical dairy-based ingredients.²¹ Currently the sixth largest dairy company in the world, Fonterra has been working through a revised strategy over the last two years to focus on added value.²² Fonterra Singapore has an R&D office in Singapore and provides a range of sourcing options to support their customers in markets nearby. They supply significant volumes of ingredients to nutraceutical companies both in Asia and across the globe.

Eu Yan Sang

This company focuses on the use of Traditional Chinese Medicine has a history that dates back 141 years when the founder set up in Malaysia after concerns about the welfare of opium-addicted tin miners in Malaya. EYS has been regarded as the go-to brand for more than a century for consumers in Asia seeking relief from illness. They are one of the largest TCM groups in Asia and focus on providing Chinese medicine, herbs and products of the high quality through an extensive distribution which includes 180 Eu Yan Sang retail outlets in China, Hong Kong, Macau, Malaysia, and Singapore as well as a restaurant in Malaysia.

Products range from dietary supplements, health foods, beverages, packaged tonic soups to personal care products. EYS works in partnership with research institutes in Singapore, Hong Kong, Malaysia and the UK and their work includes fingerprinting ingredients used in TCM to ensure they are safe and high quality EYS currently source a range of products from New Zealand.²³

Amway

With factories in Vietnam and Thailand, Amway has been operating in Southeast Asia for over 35 years. Thailand is one of the largest markets for Amway products which are sold via multi-level marketing channels. In Vietnam alone, turnover of Amway products is around US \$50million – this includes beauty care and nutritional supplements.²⁴

Herbalife Nutrition

Operating in more than 90 countries with 8,000 employees around the world, Herbalife has a strong following in Southeast Asia with a base in Singapore. Founded in 1980 with a focus on personalized nutrition they also use MLM to distribute to consumers. Like Amway, Herbalife may face pressure to change how they distribute. Products are sold exclusively through Herbalife Members and independent distributors.²⁵

Challenges to address in SEA markets

There is significant potential for nutraceuticals from New Zealand to be supplied to companies operating in Southeast Asia. However, New Zealand companies need to be aware of and address the challenges these markets present.

- Lack of alignment about the regulatory requirements across countries in SEA. Countries like Indonesia can be very hard to enter and can require donations to charity, employing locals, setting up partnerships as well as providing stability data over two years for new product registrations. The different country regulations across SEA and lack of harmonization applies to all herbal medical categories.
- Corruption can be an issue in some countries when registering new products or setting up distribution agreements.
- There is a need for consumer education about the benefits of some natural health products from New Zealand – this will help facilitate trial and adoption.
- Doing due diligence and taking the time to find and vet suppliers is crucial to avoid product challenges and/or potential legal actions for misrepresented claims.
- Managing and protecting IP while commercializing the opportunities is essential for securing the gains from innovation.
- Distance from markets makes it imperative to acquire consumer insights to formulate and develop products that meet local preferences and buying behaviour.
- HALAL registration is required in markets such as Indonesia and Malaysia.
- There is strong competition from established nutraceutical/ pharmaceutical companies from the US and Europe many of whom have been operating in the region for many years.
- Distribution channels are dominated by multi-level marketing channels with sales direct to consumers.

- Stability tests on ingredients/products are required for most products which may be distributed in sub-optimal distribution channels in part of SEA. For example, light or temperature sensitive products can deteriorate when stored at higher ambient temperatures than in New Zealand.
- COVID's impact on the supply chain
- Education via face-to-face conferences with doctors and health professionals is recommended over virtual meetings as trust-based relationships are key to success in most parts of SFA.

Routes to market:

- 1. As suppliers of a **raw ingredient** to manufacturers and distributors of nutraceuticals and supplements, supplying a distributor network across SEA.
- 2. As suppliers of a **final product** that has been developed in line with consumer needs and working with distributors in the region through MLM agencies, online or via retail chains.
- 3. As manufacturers or developers of IP with established health claims, licensing to end users in market to supply or produce branded products.

The three routes require scientific support for product efficacy and the effective communication of the story behind natural health products from New Zealand.





New Zealand nutraceutical companies

Auckland

Anagenix Ltd https://anagenix.com/

Good health

https://www.goodhealth.co.nz/about

HoneyLab

https://www.honeylab.co.nz/

Arepa

https://drinkarepa.com/

Omega plus

https://www.omegaplus.co.nz/

Douglas Pharmaceuticals

https://douglas.co.nz/about-us/our-story

Manuka Health

https://www.manukahealth.co.nz/en-nz/our-story/

Natural Health Products Association https://www.naturalhealthproducts.nz/

Nelson

Wakatū Incorporation AuOra, Wakatu House

Boysenberries New Zealand https://boysenberry.co.nz/

Christchurch

Nutrient Rescue, 174 Bealey Ave. Christchurch. https://nutrientrescue.nz/

Leaft Foods, Lincoln

https://www.leaftfoods.com

- ¹Plant and Food (PRF) March 2020 Available https://www.plantandfood.co.nz/growingfutures/food/
- ²MPI Situation Outlook Report June 2020 Available https://www.mpi.govt.nz/dmsdocument/40808-Economic-Update-for-the-Primary-Industries-June-2020
- ³ Beehive Press Release (July 7 2020) Available at https://www.beehive. govt.nz/release/govt-launches-bold-primary-sector-plan-boost-economic-recovery
- ⁴ Ministry of Health (2020) Regulation of Natural Health Prods https://www.health.govt.nz/our-work/regulation-health-and-disability-system/natural-health-products
- ⁵ NZTE Toolkits NZTE Website (2020) Accessed June 1 2020
- ⁶ NZTE Toolkits NZTE Website (2020) Accessed June 1 2020
- ⁷ New Zealand Natural Health Product Association https://www.naturalhealth.products.nz/about-natural-health-products-nz/
- ⁸ High Value Nutrition Contestable Fund. (24 Nov 2020). Can a New Zealand-made fruit drink help repair lung damage? Immune Health News. Retrieved 20 Nov from https://www.highvaluenutrition.co.nz/2020/11/24/can-a-new-zealand-made-fruit-drink-help-repair-lung-damage/
- ⁹ Market Research Forecast https://www.marketresearch.com/TIP-Knowledge-Services-v4095/Asia-Pacific-Nutraceuticals-Regional-Forecasts-13105769/
- ¹⁰ Tripathi, C; Girme, A Champaneri, S, Patel, RJ; Hingorani, L (2020) Nutraceutical regulations: An opportunity in ASEAN countries Nutrition Vol 74. Available https://www.sciencedirect.com/science/article/abs/pii/ S0899900720300125
- ¹¹India Nutraceutical Industry (29 Sept 2020) Available https://www.trade.gov/market-intelligence/india-nutraceuticals-industry
- ¹² News Brief (January 17 2014) Available https://www.todayonline.com/singapore/pm-lee-opens-lucasfilms-sandcrawler-building
- ¹³ Company Website https://www.adm.com/products-services/food/functional-health
- ¹⁴ Company Website Available https://www.adm.com/adm-worldwide/singapore
- ¹⁵ Company Website Available https://www.cargill.com/about
- ¹⁶Company Website Available https://www.cargill.com/worldwide/singapore

- ¹⁷ Company Website Available https://www.dsm.com/corporate/home.html
- ¹⁸ Available https://www.nutritioninsight.com/news/royal-dsm-to-provide-singapore-students-with-food-technology-experience.html
- ¹⁹ Company Website Available https://www.kerrygroup.com/our-company/
- ²⁰ Available https://www.irishtimes.com/business/kerry-group-spends-6-6m-on-malaysian-acquisition-1.123563
- ²¹Company Website Available https://www.nzmp.com/global/en/about-nzmp/global-ingredients.html
- ²² Fox, (Sept 20, 2020) Miles Hurrell: Whipping the cream back into Fonterra https://www.nzherald.co.nz/business/news/article. cfm?cid=3&objectid=12367280 https://www.nzmp.com/global/en/about-nzmp/global-ingredients.html
- ²³ Company Website Available https://www.euyansang.com.sg/en/141-years-of-heritage/eyscorporate34.html
- ²⁴India McMorrow & Lee Myers (2018) Amway Made China a Billion-Dollar Market. Now It Faces a Crackdown. NY Times Available https://www.nytimes.com/2018/01/08/business/amway-china.html
- ²⁵ Company Website Available https://www.herbalife.com.sg/about-us/

Summary of research findings focused on Singapore as key market Dr Vivienne Hunt and Wayne Mulligan On behalf of Nuku Ki Te Puku

