

# The Good Oil

SEPTEMBER 2019

## Melody Dairies begins construction of new \$50M spray dryer in NZ

Melody Dairies, a company in which Clover Corp has a 35% stake through Nu-Mega Ingredients (NZ) Ltd, began construction in March of its new spray dryer in New Zealand's Waikato Innovation Park.

The new \$50 million industrial spray dryer will sit alongside the existing Food Waikato dryer, in which Clover Corp has had an investment since 2014. The new dryer will have a capacity of 1.2 tonnes per hour, increasing Clovers' production capacity. The dryer should be operational by February 2020 and will increase staffing from 17 to 35 on the site.



Construction of the \$50 million industrial sprayer should be completed by February 2020.

### The dryer is being jointly funded and built by the four partners in Melody Dairies:

- Nu-Mega Ingredients (NZ) Limited, owned by Clover Corporation Ltd (35% share)
- Landcorp Farming Limited (Pāmu) (35% share)
- Dairy Nutraceuticals Limited (20% share)
- Food Waikato (10% share). Food Waikato will also manage the new spray dryer.

The dryer will manufacture Clover's high-value microencapsulated Driphorm Omega-3 powders, along with infant formula products made from cow, goat and sheep milk. The additional capacity will help Clover meet increasing demand for niche products such as its concentrated Omega-3 powder used to fortify products including gummies, health bars and milk.

"The sheep and goat milk infant formula market is growing, as mothers seek infant formula that is lactose free, from a non-bovine source and gentler on the baby's digestive system, whilst maintaining the full nutritional balance," says Peter Davey, Clover Corp CEO and Managing Director.

Clover has a product which allows infant formula manufacturers to incorporate Omega-3 (DHA & ARA) without the need for a bovine encapsulant.

"Clover's business in New Zealand has grown significantly over the past few years, and continued investment in new facilities should result in additional opportunities in the future. Whilst the dryer is well placed to service the local market, it will also assist Clover service other major markets in Europe, Asia and the Americas," Mr Davey says.

Since breaking ground at the Waikato Innovation Park site, the dryer build has progressed with little rain or delay.

"It is pleasing to see such fast progress - the project team and builders are doing an excellent job. Bringing these projects in on time and budget is a difficult exercise. The cooperation of local authorities, service providers and government make New Zealand an excellent investment location."

The build is expected to be complete by February 2020, and the next task will be to qualify the process and achieve licensing with the New Zealand Ministry for Primary Industries (MPI).

"We have designed this dryer to be built to exacting quality standards, as we are always mindful that our products go into the mouths of babies, children and adults. Therefore the highest quality standards have been applied both to the design and to the production processes at the new facility," Mr Davey says.

"Once initial commissioning trials are completed and the MPI manufacturing licence is achieved, the next step is to have customers qualify the facility against their quality standards. This will be a lengthy process of audits and

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shelf life stability assessments to ensure the manufactured products meet the highest micro-encapsulated standards for our infant formula customers.

“The partnership to build the Melody Dairies dryer has worked extremely well. All partners have an interest in a dryer matched to their specific requirements, without having to solely own and operate a dryer which would be well beyond their required capacity.

“The partners meet on a regular basis and the complementary nature of our businesses has provided all with a great opportunity. I’m sure we will all celebrate the opening when we see a return on our investment,” Mr Davey says.



## USA FDA Omega-3 blood pressure lowering health claim

### **A qualified health claim linking EPA and DHA Omega-3s to a reduction in blood pressure has been allowed by the USA Food and Drug Administration (FDA).**

The FDA alerted GOED (the Global Organization for EPA & DHA Omega-3s) of its decision on June 19.

The allowed claims, which are the result of GOED’s health claim petition filed in August 2014, can be used on the labels of general food and dietary supplements that contain at least 0.8 grams/serving of EPA + DHA.

In conjunction with the permitted health claim, the upper intake limit for EPA/DHA dietary supplements was increased from 3g to 5g.

“The DHA market is growing considerably year on year, therefore there will be an opportunity for higher DHA fortification in general food markets,” says Glenn Elliott, Nu-Mega Research, Quality and Regulatory Affairs Manager.

“As our Nu-Mega microencapsulated powders have a much higher level of DHA than competitor products, they are particularly well suited to be used for such claim.”

Nu-Mega’s attendance at Supply Side West in the USA in October this year will be very timely, in view of these new health claims.

The approved health claims are detailed below, where each is required to also carry the additional qualifying statement:

“However, FDA has concluded that the evidence is inconsistent and inconclusive. One serving of [name of food or dietary supplement] provides [ ] gram(s) of EPA and DHA.”

- **Consuming EPA and DHA combined may help lower blood pressure in the general population and reduce the risk of hypertension.**
- **Consuming EPA and DHA combined may reduce blood pressure and reduce the risk of hypertension, a risk factor for CHD (coronary heart disease).**
- **Consuming EPA and DHA combined may reduce the risk of CHD (coronary heart disease) by lowering blood pressure.**
- **Consuming EPA and DHA combined may reduce the risk of CHD (coronary heart disease) by reducing the risk of hypertension.**
- **Research shows that consuming EPA and DHA combined may be beneficial for moderating blood pressure, a risk factor for CHD (coronary heart disease).**

## Ultra-high DHA powders capture strong interest at Vitafoods Europe 2019

Nu-Mega™ Ingredients' continued product development paid strong dividends at Vitafoods Europe in May this year, with growing interest in the company's ultra-high DHA powders, according to Bassam Hallak, Global Business Manager.

"We now have a total of nine DHA powders in our product portfolio, with two high or ultra-high powders. Nu-Mega has also developed products to cater for the growing vegan market," Mr Hallak says.

Sports bars and gummies fortified with DHA were available for sampling, and new Product Solutions and Support guidelines were distributed for products such as children's chewable multi-vitamin tablets, fortified baby food, gummies, fortified protein bars and fortified protein powder for sports nutrition.

"This was our third appearance at Vitafoods. Europe is our fastest growing region, with Vitafoods delivering new leads and new opportunities in new countries," he says.

"We are again booked for Supply Side West in the USA in October, co-exhibiting with our distributor partner Socius Ingredients, and we expect the USA to follow our European growth trajectory. Supply Side West is the biggest food ingredients show in the USA, and we anticipate solid interest as we will launch our vegan powders into that market along with the new emulsion DHA Gelporm®."

DHA Gelporm®, which is suitable for UHT, beverages and yoghurt, is Nu-Mega™ Ingredients' next product launch for later this year.

China continues as a key market, and the company will be exhibiting at Food Ingredients China in March 2020.

Participation in these international trade shows has become invaluable for obtaining market insights, identifying trends that drive new product developments, promoting brand awareness and winning direct sales.

The company's product range has more than tripled in the last three years.

The infant formula market is still a major segment, but the general food markets are becoming more important, particularly with ultra-high DHA powders that enable food and beverage manufacturers to increase the amount of DHA to an extremely high level without compromising on sensory aspects such as taste and smell.

Low protein DHA products with no milk protein have gained market share for hypoallergenic infant formulas, and vegan DHA powder sales are reflecting the growth of this dietary preference.



From left to right at Vitafoods Europe: Lourdes Urban-Alandete, R&D Technologist; Tania Williams, Business Development Manager New Zealand; Lukas Hoehnke, Business Development Manager Europe; Glenn Elliott, Research, Quality and Regulatory Affairs Manager.

## Nu-Mega™ Ingredients co-hosts workshop at World Congress on Oils & Fats

Nu-Mega™ Ingredients will co-host a key infant nutrition workshop targeted at nutritionists, dietitians, infant formula manufacturers and others involved in infant health during the World Congress on Oils & Fats (WCOF) in Sydney from February 9 – 12, 2020.

The 3rd AAOCS Infant Nutrition Workshop will be jointly hosted by Nu-Mega Ingredients and the Australasian Section of the American Oil Chemists' Society (AAOCS). The program will cover the latest in science and technology in infant nutrition while providing basic and practical information relevant to manufacturing, regulatory affairs, possible contaminants and the latest in innovation.

The workshop will run from 9am to 3pm on Sunday February 9 at the International Convention Centre in Sydney. Registration includes entry to the Kaufman Memorial Lecture and opening drinks to WCOF.

For more information on WCOF: [www.wcofsydney2020.com](http://www.wcofsydney2020.com).

More detail on the Infant Nutrition Workshop:

[www.wcofsydney2020.com/pre-congress-workshops.php](http://www.wcofsydney2020.com/pre-congress-workshops.php).

Alternatively contact Dr Samaneh Ghasemi Fard (Workshop Organiser) at [samanehf@nu-mega.com](mailto:samanehf@nu-mega.com) or Dr Matt Miller (President of AAOCS) at [matt.miller@cawthron.org.nz](mailto:matt.miller@cawthron.org.nz)

### 3<sup>rd</sup> AAOCS Infant Nutrition workshop

This workshop is ideal for nutritionists, dietitians, infant formula manufacturers/industry and people interested in infant health.



## Nu-Mega™ Ingredients offers two student travel awards

Nu-Mega™ Ingredients is offering \$500 each to two eligible students in the lipid field to assist them attend the World Congress on Oils and Fats.

To be eligible, applicants must be AOCS (Australasian Section of the American Oil Chemists' Society) members currently undertaking a PhD with an accredited university in Australia, must have original research to present at the WCOF in Sydney and work on an Omega-3 related project (preferably high DHA) or lipid in infancy and childhood.

The winners will be selected based on their abstract's scientific quality and originality, quality of the biography and a statement on the significance and impact of the science to the related field.

*Applications open Monday September 2, 2019 and close Thursday October 31, 2019. For more details contact Dr Samaneh Ghasemi Fard at [samanehf@nu-mega.com](mailto:samanehf@nu-mega.com) or visit [www.wcofsydney2020.com/travel-award-nu-mega.php](http://www.wcofsydney2020.com/travel-award-nu-mega.php)*

### Nu-Mega Ingredients

Nu-Mega™ Ingredients is a wholly owned subsidiary of publicly-listed Australian company, Clover Corporation. It specialises in the manufacture and supply of Omega-3 DHA and Omega-6 ARA powders, the nutritional ingredients which are added to infant formulas, general foods and pharmaceuticals.

Clover Corp has a tuna oil refinery in Melbourne, where it takes crude tuna oil from various supply sources and converts it into a food and infant grade quality tuna oil.

Nu-Mega's spray dried microencapsulated powders use a CSIRO patented technology to stabilise the sensitive Omega-3 and Omega-6 oils which can then be dry blended into a variety of foods, beverages, infant formulas and pharmaceutical products. The oils can be heated with no impact on product smell or taste, and have a shelf life of two years.

**Clover Corporation & Nu-Mega™ Ingredients Head Office**  
39 Pinnacle Road, Altona North Victoria 3025 Australia  
PO Box 111, Altona Gate Victoria 3025 Australia  
Ph +61 3 8347 5000 Fax +61 3 9369 8900  
[www.clovercorp.com.au](http://www.clovercorp.com.au)

## Choline and DHA co-supplementation essential for foetal and postnatal development

Organisations including the European Food Safety Authority (EFSA) and the World Health Organization (WHO) have highlighted the importance of several key nutrients during pregnancy, including choline and DHA.

Choline and DHA are important in supporting early neurodevelopment and lifelong mental health.

They are constitutive body components, linked via phosphatidylcholine (PC) metabolism, tightly regulated in tissues and essential to foetal development and the first 1000 days of life.

German researchers<sup>1</sup> looked at stable-isotope labelling for understanding the metabolic effects of co-supplementation of DHA and choline in preterm infants. In this study, 24 inborn preterm infants < 32-week postmenstrual age were randomized to one of 4 groups (N = 6 each), receiving either standard enteral nutrition (control) or, additionally, 30 mg/kg/day of enteral choline, 60 mg/kg/day of enteral DHA, or both for 10 days.

The authors reported that enteral supplementation with 30 mg/kg/day choline increases the plasma choline concentrations to near-foetal values. Combination of DHA supplementation with choline reversed the shift of plasma DHA from neutral lipids to PC, and increased DHA-PC more than DHA alone, which may improve its supply to eyes and brain.

Dr Samaneh Ghasemi Fard, Nu-Mega's R&D Technologist and Research Liaison Officer, said increasing the dietary intake of DHA and choline, by using fortified infant and toddler formulas, can increase blood levels equal to the recommendations.

### "This will have a positive long-term influence on children's health"

- Dr Samaneh Ghasemi Fard

*Nu-Mega™ Ingredients supplied fish oil-based triglyceride emulsion (Premneo®, 120 mg/mL DHA) for this study with no influence on its design, outcome or publication.*

1. Bernhard, W., et al., Combined choline and DHA supplementation: a randomized controlled trial. *European journal of nutrition*, 2019: p. 1-11.

