

## PRESS RELEASE

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### **New era of food security beckons as world's first industrial-scale alternative protein facility switches on**

**SAN MATEO, Calif.** The world's first industrial-scale facility to produce FeedKind®, a protein ingredient that needs no animal or plant matter to produce, has switched on.

Calyseco, a joint venture between worldwide animal nutrition leader Adisseo and protein innovator Calysta, will initially produce 20,000 tonnes of protein per year from the facility in Chongqing, China. With startup operations complete, the fermenter will become world's largest single protein production facility.

FeedKind protein is nutritionally rich and non-GMO, giving aquaculture companies a product that both helps preserve biodiversity while providing a high-quality product that addresses growing market need.

First deliveries, of FeedKind Aqua®, will be made to customers soon, making it the first alternative fermented protein to address the sector at scale.

Jean-Marc Dublanc, CEO of Adisseo, said: *"Food security has increasingly come under the spotlight in recent months, but we are now entering a new era of sustainable food production. Calyseco brings to the market a new way of making high-quality protein – and does so using a naturally-occurring microbe that makes the resulting protein non-GMO, something that is increasingly demanded through the supply chain."*

*"We have a long-running commitment to improving the security and sustainability of the feed ingredient market and Calyseco fulfils a significant part of that pledge. We will provide Chinese customers with a reliable, domestically available supply of protein that meets their specific needs; produced in China for China."*

*"We are looking forward to working with our customers as they begin to integrate this product into their supply chains."*

The microbial protein is produced via a natural fermentation, which takes place inside a novel high-capacity u-loop reactor patented by Calysta. It answers an increasing need for a sustainable source of protein to meet the demands of a growing global population coupled with increased concerns about preserving biodiversity.

Because it needs no plant or animal matter and little water, it can be produced without impacting wild spaces.

The Chongqing facility will produce FeedKind Aqua® for use in fish farming, allowing farmers to replace fishmeal and soy with a high-quality ingredient that needs no arable land and no plant matter. Initially, production will be available for use in China, the world's largest aquaculture market.

Alan Shaw Ph.D., the co-founder, CEO and President of Calysta said: *“Today is an incredibly proud moment. We have spent the last 10 years perfecting our technology and it is exciting to have successfully switched on the world’s first industrial-scale alternative protein fermenter. This is a huge step as we aim to help make the world more food secure.*

*“Cellular agriculture, where protein is grown in a controlled environment, is key to helping the world meet its future food needs and we are proud to be taking the first steps on our journey to hyper-scaling this technology with Adisseo, who we look forward to working with for many years to come.*

*“This is an exciting time for Calysta as a whole, as we continue to work on bringing a host of additional protein ingredients for food and feed applications to market.”*

FeedKind Aqua will address a growing need for protein ingredients in the rapidly expanding global aquaculture market, which is experiencing strong growth and is expected to become the third largest animal protein source, accounting for more than 100 million tonnes of production.

Meanwhile, the human population is set to grow to 10 billion by 2050, meaning an increasing demand for protein ingredients for food.

In completing the site, the Calysseo team had to overcome substantial challenges, with COVID restrictions in place throughout the build. Despite this, construction completed on schedule, and switching the fermenter on means production is now underway.

Pierre Casamatta, co-managing director of Calysseo, added: *“We are doing something that has never been achieved before at scale, so I’m incredibly proud of our team to have completed the build on-schedule and move so smoothly to successfully switching the fermenter on.*

*“To reach this milestone in such a short time during the enormously challenging implications of COVID-19 is incredibly rewarding and testament to the skill and commitment of the Calysseo team, and that of our JV partners.”*

FeedKind® is part of a family of ingredients developed by Calysta. The production process harnesses the power of a naturally occurring microorganism that consumes low cost, land free carbon sources, converting it into a non-GMO, nutritionally rich protein, ideal for food and feed applications.

The strategic partnership between Adisseo and Calysta will directly address one of the most important opportunities in aquaculture – to provide high quality seafood without adding extra pressure to the environment.

FeedKind Aqua® has been validated over several years following extensive trials across several popular aquaculture species, including seabass, bream, and salmon. Thailand’s Kasetsart University, Thailand, recently found distinct benefits for shrimp, saying FeedKind® promotes strong, healthy growth, while also helping activate shrimp’s immune response to Vibrio, the causative agent of Early Mortality Syndrome.

Since it was discovered in 2009, EMS has wreaked havoc on the Asian aquaculture market, causing billions of dollars in losses.

Calysta’s protein platform is also approved for use in livestock feeds and pet food.

The JV partners are now focusing on bringing forward more capacity to address the Asian market. forward

FeedKind® will help to reduce pressure on wild fisheries. If used instead of conventional sources of protein, 100,000 tonnes of FeedKind® could mean that between approx. 420,000 – 450,000 tonnes of wild caught fish could be saved. Used instead of vegetable proteins, the same quantity of FeedKind® could free up as much as 535 km<sup>2</sup> of land and would save 9 billion litres of water.

For more information, visit [feedkind.com](https://feedkind.com).

### **About Calysta**

[Calysta, Inc.](https://calysta.com), San Mateo, CA, is a biotechnology company working towards a future where the world's growing population has guaranteed food security. Calysta's aim is to make protein without limits by fermenting low cost, land free carbon sources, to create new feed and food products, creating sustainable, high value nutritional ingredients that don't interfere with the human food chain.

[FeedKind®](https://feedkind.com) is made using very little water and no agricultural land by fermenting low cost, land free carbon sources, to create a safe, nutritious, traceable, and affordable protein. Produced via a natural fermentation, it is non-GMO, price competitive with existing sources of protein and produced to the highest quality standards. FeedKind® has been commercially validated through extensive customer trials in aquaculture and agriculture.

### **Media Contacts**

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### **About Adisseo**

Adisseo is one of the world's leading experts in feed additives. The group relies on its 8 research centres and its production sites based in Europe, USA, China, and Thailand to design, produce and market nutritional solutions for sustainable animal feed.

With more than 2,520 employees, it serves around 3,900 customers in over 110 different countries through its global distribution network.

In 2021, Adisseo achieved a turnover of 1.69 billion euros.

Adisseo is one of the main subsidiaries of China National BlueStar, leader in the Chinese chemical industry with nearly 19,920 employees and a turnover of 9.4 billion euros.

Adisseo is listed on the Shanghai Stock Exchange.  
Corporate website: [www.adisseo.com](https://www.adisseo.com)

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