

PRESS RELEASE

## Phileo launches Prosaf® for optimum performance & sustainable aquaculture

Phileo announces the launch of Prosaf®, an innovative solution to better value plant-based diets by increasing feed intake and performance.

**Marcq-en-Baroeul, France** (September 18, 2018) – As the global population continues to increase, the world faces a growing demand for food in the face of a huge sustainability challenge.

“Working at the crossroads of nutrition and health, we are committed to delivering innovative solutions that enhance farmed fish and shrimp health and performance,” said Otavio Castro, Global Species Manager Aquaculture at Phileo. “This is the context in which we’re delighted to unveil Prosaf®, a truly innovative product that will bring new flexibility to balancing aquaculture diets for optimal performance.”

The use of marine ingredients, such as fishmeal and fish oil, is being drastically reduced in aquafeed production due to the decreasing availability of such items worldwide. While manufacturers are turning instead to more sustainable items, such as plant-based ingredients, their inclusion remains challenging, especially at high levels. This is due to negative impacts on feed intake, perturbations of metabolic and health status, and growth performance slowdown.

This is why Phileo R&D has developed Prosaf®, a highly palatable source of small size bioavailable peptides, free amino acids and nucleotides, designed to boost fish growth, performance and disease resistance.

Prosaf® is a water soluble purified yeast extract, obtained by primary fermentation with a high protein content.

Officially analysed by HPLC, Prosaf® has been confirmed as containing only small peptides, more than 88% of which are below 3.6 kDa, with 38% below 1 kDa. As such, the product offers highly bioavailable nutrients to increase the palatability and digestibility of plant-based diets.

Pre-launch studies, based on shrimp, have proved that supplementing low-fishmeal diets with Prosaf® results in the same feed intake, growth performance and restored immune status, as comparative diets with three times as much fishmeal content.

- Trial one, carried out in Brazil earlier this year, demonstrated that reducing the fishmeal content of shrimp diets from 12% to 3% significantly reduced feed consumption. However, when the same low-fishmeal diet was supplemented with 2% Prosaf®, over a feeding period of 15 days, there was a significant increase in feed intake.
- Trial two, carried out with shrimp diets at Prince of Songkla University in Thailand, also earlier this year, demonstrated that supplementing a low-fishmeal diet (5%) with 2.5% Prosaf® improved weight gain significantly. The trial also showed that low-fishmeal diets, supplemented with Prosaf® at 0.5%, 1.5% and 2.5% respectively, delivered weight gain results which were as efficient as those recorded for a high-fishmeal diet (15%). The same trial also included an assessment of the impact of Prosaf® on both low and high-fishmeal diets. When recorded after 62 days of feeding, the specific growth rate of shrimp in a low-fishmeal control group (5%) was lower than the high-fishmeal control group (15%). This negative effect was mitigated,

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however, by supplementing the low-fishmeal diet with Prosaf® at 2.5%, increasing the specific growth rate of the Prosaf® group by up to 18 points.

There is also trial evidence that Prosaf® strengthens the natural defences of shrimp in comparison to fish which are fed on a non-supplemented low-fishmeal diet. This is based on the importance of hemocytes, as a vital component of the shrimp hemolymph, due to their ability to differentiate and play several immune defense roles, such as phagocytosis, encapsulation, prophenol oxidase system and melanization. According to the trial carried out at Prince of Songkla University, supplementing a low-fishmeal diet (5%) with 2.5% Prosaf® for 62 days significantly increased the total hemocyte count in whiteleg shrimp (*Litopenaeus vannamei*) hemolymph. It was also observed that phenoloxidase activity was significantly improved in shrimp fed a low-fishmeal diet which was supplemented with Prosaf® (2.5%), compared to the low-fishmeal diet control group (5%).

In addition to Prosaf®, the Phileo product range of innovative solutions for aquaculture also includes:

- Safmannan® - premium yeast fraction rich in mannan-oligosaccharides and β-glucans (1.3 and 1.6) delivers outstanding consistency and quality for performance you can rely on every time. Safmannan® supports natural defences, reduces pathogen pressure and promotes gut function.
- Selsaf® - premium organic selenium enriched yeast, ensures a high concentration of organic selenium and a consistent composition. Selsaf® increases resistance to oxidative stress, promotes faster recovery after a pathological event, increases filet quality and ensures the maintenance of anti-oxidative activity in a fishmeal replacement strategy.

Working at the cutting edge of innovation, Phileo has a dedicated R&D division with staff located in Europe, North and South America and Asia. Our experts work in close collaboration with renowned universities and reference research centres across the globe, seeking to improve the farming of all aquaculture species. The team's expertise includes both fundamental in-vitro research and upstream activities, covering a wide range of different fields, including nutrition, microbiology, immunology, microbiota and feed technologies.

#### About Phileo

Backed by 30 years' experience and a global staff of 150 people, Phileo is viewed as a major player in the animal nutrition, health and welfare market. Phileo works at the crossroads of nutrition and animal health, designing, developing and delivering innovative nutritional solutions to improve animal health and performance. Our innovative capacity and mastery of manufacturing processes enables us to meet the most stringent industry and livestock production demands. Thanks to our global presence, we aim to stay close to our customers, always being able to adapt readily to their needs.

#### About Lesaffre

As a global key player in yeasts and fermentation, Lesaffre designs, manufactures and markets innovative solutions for Baking, Food taste & pleasure, Health care and Biotechnology. Family group born in Northern France in 1853, now a multi-national and a multicultural company, Lesaffre is committed to working with confidence to better nourish and protect the planet. In close collaboration with its clients and partners, Lesaffre employs 10,000 people in 78 subsidiaries based in 50 countries. Lesaffre achieves a turnover of 2 billion euros.

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