





BioMar and Deep Branch team up to trial single cell protein in salmon feeds

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Nutritional assessments to test the performance and digestibility of the protein-rich ingredient for fish health and growth

Deep Branch and BioMar have signed a long-term technical and commercial partnership to "redefine traditional aquaculture feed ingredients," and to improve the aquaculture industry's efficiency. profitability and sustainability. The primary focus will be to optimize salmon feed using Proton™ – a single cell protein developed by Deep Branch for the feed industry, as a primary protein source.

"At BioMar, we're constantly seeking innovative raw materials that don't compete with human food production and using nutrients from by-products that minimize waste," said Paddy Campbell, VP Salmon at BioMar Group. "Driving a breakthrough innovation such as Proton™ requires collaboration across the value chain, and we look forward to working together to make Proton™ a commercial reality in our aquafeeds."

Deep Branch (https://deepbranch.com/) is a UK-based biotechnology company that creates sustainable, high-value food and feed ingredients to support a more sustainable food system. The company's proprietary technology uses carbon dioxide and hydrogen as renewable carbon and energy sources to deliver bio-based products.



Deep Branch and BioMar will test the performance and digestibility of Proton™, a single-cell protein for salmon feeds.

BioMar (https://www.biomar.com/) is a leading supplier of aquaculture feed that operates 17 feed factories across the globe. The company "encourages and stimulates regenerative practices" in its supply chain and has set targets for the minimum inclusion of circular and restorative ingredients in its products. BioMar also aims to "decouple feed supply chains from environmental degradation and directly compete with food for human consumption."



(https://bspcertification.org/)

"The world needs to move from making pledges to taking action, and we are passionate about industrial ecology underpinning the next generation of food production," said Pete Rowe, Deep Branch's CEO. "We see BioMar as a key partner in bringing Proton™ to market as its ambitious targets and

commitment to collaboration fully align with ours."

To launch the partnership, Deep Branch will transport Proton™ from its facility in the Netherlands to BioMar's Technology Centre in Denmark to produce Proton™-based feed until the end of 2022. The companies will conduct a full suite of nutritional assessments in Denmark, Norway and the UK to test the protein-rich ingredient. These tests will focus on performance, digestibility and other parameters essential for fish health and growth.



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A Norwegian fermentation technology firm utilizes volcanic matter to transform salmon waste, including feces and uneaten feed, into a highprotein powder.



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"Innovation doesn't happen in a vacuum," said Rowe. "We have a unique opportunity to create new value chains and ensure this is a net positive for all stakeholders. Our partnership with BioMar will create a powerful message for potential upstream partners that supplying hydrogen and carbon dioxide to our facilities can directly decarbonize our food systems."

Both Deep Branch and BioMar are part of the end-to-end, value chain-wide REACT-FIRST consortium, supported by grant funding from Innovate UK. The REACT-FIRST program is designed to obtain critical data on the cost, digestibility, nutritional quality and carbon footprint of Proton™ and is the first step toward the ingredient's commercial development.

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