Issue 2 Date: May 1, 2022

Newsletter

MILLENNIAL SALMON


Photo: Nofima

NEW PROJECT RESULTS SHOW THAT CORBION AlgaPrime™ DHA LS IS ALSO HIGHLY DIGESTIBLE WHEN COATED TO FEED


Photo: Lars Thoresen, Nofima

Researcher André Sture Bogevik - Nofima, Nutrition and Feed Technology, is leading Millennial salmon project activities using *Schizochytrium sp.* and insect meal in feeds for Atlantic salmon.

"Previous findings have shown that heat and mechanical treatment of the *Schizochytrium sp.* biomass in the feed mix through the extrusion process is essential for optimal lipid digestibility in the Atlantic salmon. However, Corbion has developed a process that allows their AlgaPrime™ DHA LS product to be coated to the pellets after extrusion. Recently, fish experiments at Nofima Research Station for Sustainable Aquaculture (Sunndalsøra, Norway) have shown similar lipid digestibility in salmon postsmolt fed diets where AlgaPrime™ DHA LS was either included in the feed mix prior to extrusion or coated to the pellets after extrusion. These findings are essential to expand the use of AlgaPrime™ DHA LS and its implementation as a standard in feed production lines".

Corbion algae production fermentation factory in the major sugar cane production area in São Paulo State of Brazil, located next door to a sugar cane mill. Plant sugars are transformed into biomass containing omega 3-rich oil in a matter of days. The sugar cane waste (called bagasse) is used as a renewable source of energy to fully power the sugar mill and the Corbion production facility. An analysis of 20 years of satellite images of the production area revealed zero deforestation (Global Risk Assessment Service using the GRAS Tool).

Photo: Corbion

MOWI FEED and LABEYRIE FINE FOODS join as strategic funding partners in the Millennial Salmon project

The Millennial Salmon consortium is preparing the inclusion of MOWI FEED and LABEYRIE FINE FOODS in the project. The industrial partners contribute to complete the Millennial salmon value chain including a salmon farmer and a smokery, respectively. Additional project funding from MOWI FEED and LABEYRIE FINE FOODS will offer more in depth and broader investigation of life-long novel and low trophic ingredient effects in salmon welfare, growth, and final product quality.

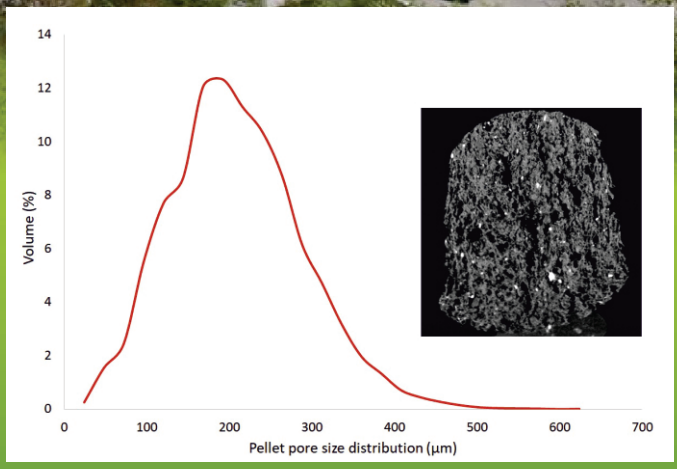

Photo: MOWI

MOWI's Averøy Field Trials Station in Central Norway will host a life-long production trial in Millennial salmon project to identify long term physiological responses of decreasing dietary EPA levels in diets for Atlantic salmon.


Photo: Nofima

EXTRUDED FEED TECHNOLOGY

It is possible to add AlgaPrime™ DHA LS in the feed mix before extrusion or in the dried feed in a vacuum coating process. The figure shows a CT-scan of pellet with high physical quality containing 7% AlgaPrime™ DHA LS in the feed mix. The particle size in the AlgaPrime™ DHA LS suspension is lower than 200 µm. The pellet pore size distribution (µm) measured for the dried feed shows that the pore sizes are large enough for adsorption of high amount of AlgaPrime™ DHA LS in the vacuum coating process.



Top: Nofima Research Station for Sustainable Aquaculture (Sunndalsøra, Norway)
Right: Trial performed by Tor Andreas Samuelsen at the Aquafeed Technology center (ATC), Nofima, Bergen, Norway.

Photo: Labeyrie

LABEYRIE FINE FOODS plans to demonstrate the physical and sensory qualities of fresh and smoked Millennial salmon in their research pilot in France.


Photo: Labeyrie

MORE INFO ABOUT THE PROJECT

...at Nofima.no

...RCN

...or the previous newsletter

PROJECT PARTNERS AND FUNDING

Research institutes:

Nofima

SINTEF

Funding industrial partners:

innova FEED

Cargill

Corbion

Auchan

LABEYRIE FINE FOODS

MOWI

Funding public body:

The Research Council of Norway

CONTACT US: Senior researcher Katerina Kousoulaki (Project coordinator) at Nofima AS
mob. tel. nr. +47 47910710 e-mail: katerina.kousoulaki@nofima.no