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Aquafeeds

# Can paper byproducts serve as a novel protein ingredient for aquaculture?

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By Responsible Seafood Advocate

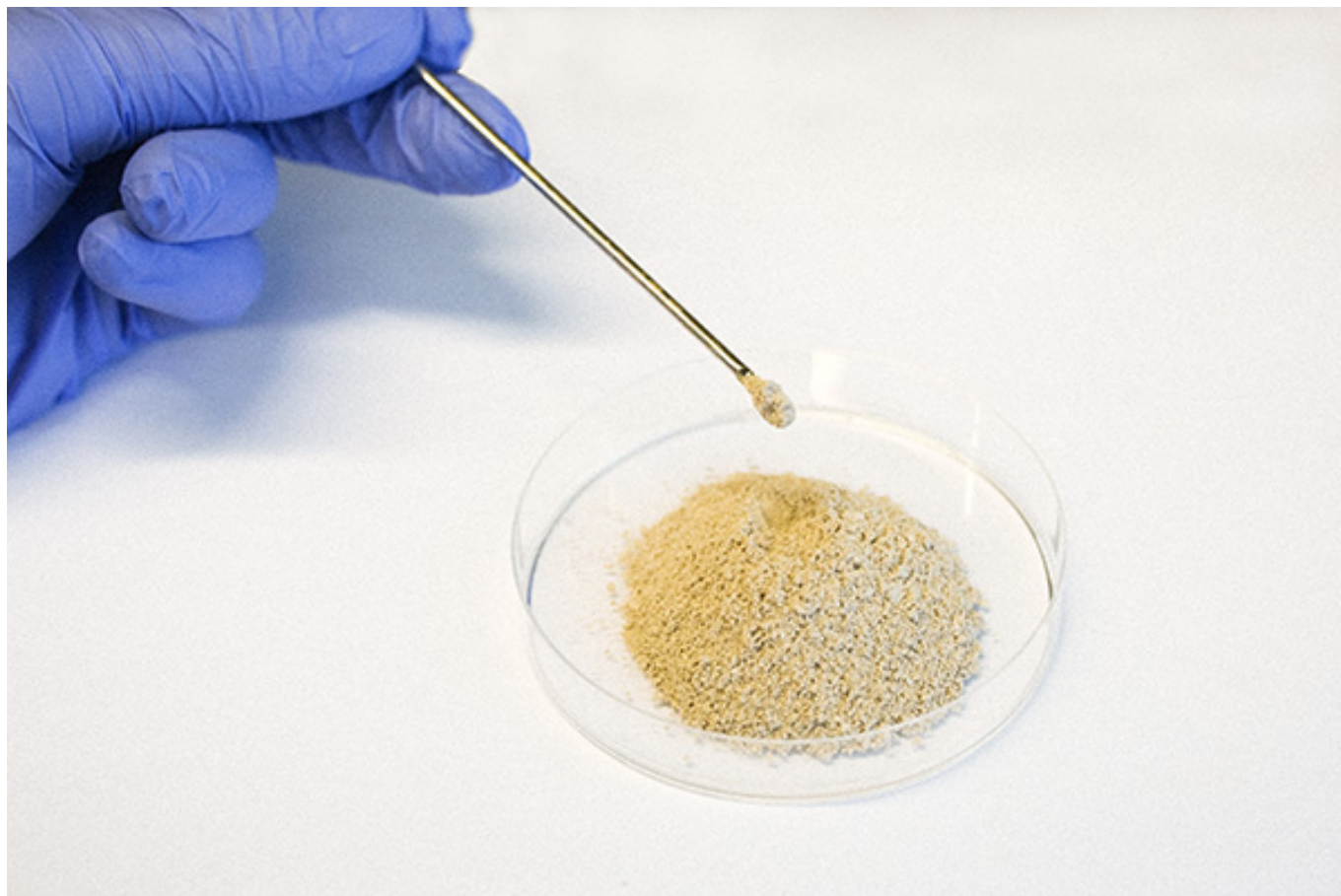
## Tree-to-Feed project seeks to produce novel protein ingredient from paper byproducts

Sylvamo, one of the world's largest paper companies, is partnering with industrial biotechnology company Cirkular to produce a novel protein from paper byproducts.

The "Tree-to-Feed" project is powered by Cirkular's proprietary technology, which ferments pulp byproducts from the paper manufacturing process to produce Cirkulein™ – a high-quality, feed protein ingredient.

"Our purpose is to produce paper in the most responsible and sustainable ways," said Michael Lindemann, Sylvamo's Nymolla mill manager. "By providing our byproducts as a raw material, we can reduce waste and contribute even more to the circular economy."

The Swedish University of Agricultural Sciences will conduct feeding trials to evaluate the digestibility and growth of fish that are fed Cirkulein. If successful, the project could provide a locally-produced alternative ingredient for the aquafeed industry while reducing the carbon emissions and supply chain costs of producing and transporting feed.



Sylvamo is partnering with industrial biotechnology company Cirkular to produce a novel protein ingredient from paper byproducts. Photo courtesy of Sylvamo.

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“This is a great opportunity to demonstrate our technology and product quality on a larger scale,” said Eric Oste, Cirkular’s CEO. “We offer a sustainable feed solution, in large volumes, at a competitive price point, supporting the growing demand for aquafeed in the Nordics and globally.”

The project, partially funded by Sweden’s innovation agency Vinnova, will begin as a pilot in September but could produce thousands of tons of Cirkulein annually.

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**Author**

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**RESPONSIBLE SEAFOOD ADVOCATE**

[editor@globalseafood.org](mailto:editor@globalseafood.org) (<mailto:editor@globalseafood.org>).

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