



Corbion

Case Study

Microalgae to preserve the planet's limited resources



Overview

Long-chain Omega-3 fatty acids, such as DHA, are essential nutrients for both humans and many animal diets. Microalgae are the original source of Omega-3s, traditionally accumulated in fish, which is why fish oil has long been the main commercial source. By cultivating microalgae through fermentation, Corbion offers a sustainable alternative that decouples the commercial availability of Omega-3 DHA from fish stocks, significantly reducing pressure on marine ecosystems.

Corbion's algae-derived Omega-3 products are produced through a fully integrated manufacturing process that relies on locally grown, verified responsibly sourced cane sugar. The process uses cane sugar as feedstock, while the by-product of sugar production is converted into renewable energy to power our algae facility. This circular system ensures efficient use of sugarcane, maximizes by-product valorization, and minimizes waste.

Impact

The result is a high-quality, reliable source of Omega-3 DHA with a lower climate impact compared to fish-oil derived Omega-3 DHA. By combining innovation with sustainability, Corbion is proud to contribute to the feed industry's transition towards more resilient and responsible nutrition solutions.

Corbion is a market leader in algae-derived Omega-3 DHA. Today, our Omega-3 DHA products are included in over 4 million metric tons of aquaculture feed supplied, while we also serve the petfood, livestock, poultry and human nutrition market. We continue to collaborate with partners across the value chain to make supply chains more resilient and accelerate the adoption of sustainable feed ingredients.

Supporting Materials:

- [Life cycle assessment of heterotrophic algae omega-3 - ScienceDirect](#)

*This sustainability-related case study was provided by **Corbion**.*

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