Image: Members of the NTU-TP research team

Research: Soybean Wastewater Yields Fishmeal Alternative

SINGAPORE
Friday, May 03, 2024, 07:00 (GMT + 9)

(back row, L-R): NTU Professor Stefan Wuertz, School of Civil and Environmental Engineering and Deputy Centre Director, SCELSE; Dr Loo Poh Leong, Research fellow, SCELSE; Dr Ezequiel Santillan, Senior research fellow, SCELSE, (front row, L-R) Dr Woo Yissue, Research fellow, SCELSE; Dr Diana Chan, Head, AIC at Temasek Polytechnic.

Study successfully replaces fishmeal with microbial protein cultivated from soybean processing wastewater

Scientists from **Nanyang Technological University (NTU)** and **Temasek Polytechnic** have successfully replaced half of the fishmeal protein in the diets of farmed Asian seabass with a 'single cell protein' cultivated from microbes in soybean processing wastewater, paving the way for more sustainable fish farming practices.

The use of a cultivated protein is new to aquaculture production, say the scientists from the Singapore Centre for Environmental Life Sciences Engineering (SCELSE) leading NTU's efforts in the study, and Temasek Polytechnic's Aquaculture Innovation Centre (AIC).

Farmed aquaculture species rely heavily on feed made from wild-caught fish, known as fishmeal, which is not sustainable and contributes to overfishing of the seas.

Single cell protein, a sustainable alternative, can be cultivated from food processing wastewater. In particular, the wastewater from soybean processing contains organisms with probiotic potential that are essential for healthy fish growth.

Wastewaters from the food-processing industry are free of pathogens and other contaminants, make them suitable for growing microbes. Normally after processing the wastewater is discharged and flows into a wastewater reclamation plant. Its nutrients are not recovered, resulting in a lost opportunity to maximise resource use.

editorial@seafood.media
www.seafood.media

MORE NEWS

China
May 3, 07:40 (GMT + 9): Southwest Atlantic Squid Index: Illex Squid (Illex Argentinus)
United States
May 3, 07:00 (GMT + 9): Status of the stocks: Record-low number of stocks on overfishing list in 2023
Denmark
May 3, 07:00 (GMT + 9): Maersk Q1 results in line with expectations amid ongoing Red Sea disruptions
Viet Nam
May 3, 07:00 (GMT + 9): VASEP Releases Q1/2024 Seafood Export Report
United States
May 3, 07:00 (GMT + 9): Greenpeace Against Bumble Bee Tuna
Singapore
May 3, 07:00 (GMT + 9): Research: Soybean Wastewater Yields Fishmeal Alternative
Netherlands
May 3, 07:00 (GMT + 9): The Kingfish Company Q4 and FY 2023 financial results
United Kingdom
May 3, 05:00 (GMT + 9): Appetite for sustainably sourced tuna undimmed by cost-of-living crisis
Argentina
May 3, 01:00 (GMT + 9): Fishing Exports Increased by 10.4% in Q1
Norway
May 3, 01:00 (GMT + 9): Fish Pool Salmon Price Status Report for week 18
India
May 2, 07:00 (GMT + 9): ICAR-DCFR commercializes rainbow trout feeds and RAS Technology
United States
May 2, 07:00 (GMT + 9): Natural Shrimp, Inc. Announces New Markets for Sale of Shrimp
United States
May 2, 06:50 (GMT + 9): Fishwife's Retail Footprint Grows with Nationwide Expansion into Select Whole Foods Market Stores
Canada
May 2, 03:30 (GMT + 9): What Canada can learn from Maine's approach to the lucrative baby eel fishery
Indonesia
May 2, 01:00 (GMT + 9): Greenpeace pulls fishery documentary from YouTube after Taiwan complaints