

SERVING THE AQUACULTURE INDUSTRY FOR 49 YEARS

# aquaculture

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## ARCHETYPES OF AQUACULTURE DEVELOPMENT ACROSS 150 COUNTRIES

THE IMPORTANCE OF COMPREHENSIVE AND INTEGRATED DATA IN UNDERSTANDING AND CHARACTERIZING AQUACULTURE DEVELOPMENT HAS BEEN INCREASINGLY RECOGNIZED IN RECENT YEARS.

## PORTUGUESE PEP4FISH PROJECT STARTS TRIALS WITH HYDROLYZED FEEDS WITH ANTIOXIDANT AND ANTIMICROBIAL PROPERTIES

The first trials of the Portuguese Pep4Fish project, which aims to explore innovative solutions to strengthen aquaculture fish production, are already underway. Three hydrolyzed feeds with antioxidants and antimicrobial properties were selected for the first trial with sea bass. The researchers are following the development of the animals to observe improvements in their health, growth and resistance to adverse conditions.

Pep4Fish hopes to develop diets by 2025 that improves the robustness of sea bass and sea bream, making them more resistant to stress and bacterial infections. The initiative, part of the ambitious Blue Bioeconomy Pact, is driven by a consortium of companies and brings together multidisciplinary partners, from research to industry, promoting the principles of the circular economy.

"The development of new and sustainable diets that increase the resistance of fish to diseases and improve the quality of the final product for consumers will open new perspectives for the future of aquaculture," explained André Almeida, head of research at the Animal By-products Processing Company Group (ETSA), the leader in the initiative. The expert stresses that disease prevention and control will help to minimize economic losses in the sector.

### EUR 21.7 million in funding

The project, included in the Blue Bioeconomy Pact and financed by the Recovery and Resilience Plan (PRR) with an amount of about EUR 21.7 million, is led by the *ETSA Group* and has the participation of nine partners, including research centers and companies. They are *AgroGrIN Tech*, B2E (Blue Bioeconomy CoLAB, B2E CoLAB), the Interdisciplinary Center for Marine and Environmental Research (CIIMAR), *ITS, Empresa de Processamento de Subprodutos Industriais (ETSA)*,



*Seaculture (Jerónimo Martins), Savinor and Soja Portugal (Sorgal), Sebel (ETSA), and the Portuguese Catholic University.*

### First sea bass trial

The trials are currently underway at CIIMAR. For the first sea bass trial, three hydrolysates with antioxidant and antimicrobial properties were selected. The researchers are following the development of the animals to observe improvements in their health and growth and resistance to adverse conditions.

At the Portuguese Catholic University, which is responsible for the development of new hydrolysates, progress has led to the first poultry hydrolysates with evidence of antioxidant activity.

Between now and 2025, the Pep4Fish project will continue to explore and deepen the use of hydrolysates in aquaculture, with the aim of improving the sustainable production of marine fish.

### Aquaculture becomes increasingly relevant

With the growing demand for nutritious, healthy and safe food for humans consumption, aquaculture is becoming increasingly important worldwide. Today, it already provides half of the fish consumed in the world.

The Pep4Fish project will address this growing demand by using animals by-products such as fish, poultry and pork, as well as alternative resources such as insects, to create innovative value-added products (hydrolysates) for sea bass and sea bream feed. These hydrolysates will not only improve fish health but also human nutrition, reduce food waste and preserve the ocean resources.

Thus, the Pep4Fish project also plays an active role in environmental sustainability. "It is a clear commitment to the circular economy. We are reducing waste by reusing and transforming by-products into food ingredients specifically intended for aquaculture diets," Almeida assured.

### Significant investments in companies

In addition to scientific research, the Pep4Fish project promotes an open and collaborative approach with industrial applicability, including significant investments in companies to increase the necessary production capacity. This project will develop two new diets for the industry, one for sea bass and one for sea bream, based on four new hydrolysates that were produced in Portugal. 🌊