

GVA-THINKINAZUL WP5-AQUACULTURE, QUALITY AND INNOVATION (AQUI)

NEW GILTHEAD SEA BREAM FEED FORMULATIONS ENSURE NUTRITIONAL VALUE AND FOOD SAFETY



extensive screening of 2,000 organic An over compounds shows a low contaminant load in new gilthead sea bream feeds with a high replacement level of fishmeal with alternative protein sources such plant-based proteins, meal, single-cell insect proteins, and animal protein hydrolysates.

The low transfer of emerging and/or persistent contaminants from feed to fillet clearly indicates that the new feed formulations do not pose a food safety risk.



The use of new feed formulations for gilthead sea bream from 15–20 g up to 300 g has resulted in:

- A reduction in total content of heavy metals (arsenic and mercury).
- Higher retention of omega-3 fatty acids (DHA) in the fillet.



GILTHEAD SEA BREAM BY-PRODUCT MEAL: A HEALTHY AND SUSTAINABLE NEW INGREDIENT FOR HUMAN NUTRITION

Gilthead sea bream by-product meal (from filleting waste such as bones and fins) has been validated for use in processed food products (croquettes and battered products) with excellent sensory acceptance. This represents a revalorization of these ingredients and an efficient resource utilization strategy.











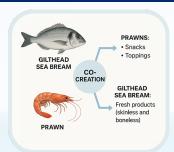








REVEALING CONSUMER PREFERENCES: WHAT SHRIMP AND SEA BREAM PRODUCTS DO CONSUMERS WANT?



Co-creation techniques reveal that consumers are interested in innovative shrimp-based products like toppings and snacks, reflecting a trend toward ready-to-eat foods. In contrast, for gilthead sea bream, consumers prefer traditional options such as fresh, boneless, skinless fillets with a long shelf life, valuing them as a lean, flavorful protein suited to modern lifestyles.

"FARM TO SNACK" FARM RANGED SHRIMP, READY FOR THE CONVENIENCE MARKET



We have created aquaculture-based shrimp products that ease pressure on wild populations and provide full traceability from farm to consumer. Designed as innovative, healthy, and affordable snacks, our products offer a scalable solution with strong potential in the expanding snack food market.

UNDERSTANDING WP5

WP5 (AQUI) focuses on the quality and safety of aquaculture products through five key objectives: i) Characterize farmed fish fed with alternative-ingredient diets, assessing their nutritional and sensory quality throughout the production cycle, including bioactive compounds and potential contaminants in edible parts and viscera; ii) Cocreate new processed products from various aquaculture species that are healthy, sustainable, and nutritious, and evaluate their shelf life and consumer perception; iii) Assess consumer views on aquaculture quality and sustainability; iv) Develop new surface treatments to improve hygiene and disinfection in fish processing facilities; v) Develop rapid, low-cost contaminant detection methods using nanophotonic techniques.



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