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## More meagre on our plates!

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*Argyrosomus regius*, or better known as meagre, is a fish with great commercial potential due to its flesh quality, taste and fast growth in captivity. This fish is less known than its counterparts, seabass and seabream. However, most recipes containing seabream and seabass can be easily prepared using meagre meat. This fish is rich in omega-3 fatty acids, phosphorus, protein and vitamin D, and it has first-class white meat with a more neutral taste, which makes it more accepted by children. What makes meagre stand out is its firm meat that is suitable for an array of preparation methods, such as frying, baking, steaming, even marinating raw, but the best culinary treatment would be grilling due to the retention of proteins and minerals.

Because this species is not yet well known among consumers, its demand is low, therefore, it is not widely farmed. Fish farmers prefer focusing on the fan-favourite seabass and seabream, neglecting the potential of meagre.

Annual global production of meagre is currently around 50,000 tonnes. Meagre farming started in the late 1990s in France and Italy, but since then, did not really have a big commercial boom. In Europe, meagre aquaculture is practiced in Greece, Spain, Croatia and Portugal.

There are many reasons to boost the aquaculture of this species. Farmed meagre is harvested when its weight is between 1.5 and 3kg, for an average value of 5-14 €/kg. Its commercial size can be reached in only 18 months, when farmed in warmer waters, while seabream reaches only 400 g during the same time. The fast growth is associated with a lower carbon footprint because less energy is needed to produce biomass. This means that the environmental impact of farming meagre is lower than farming seabream and seabass. Besides the environmental benefits, the costs of production are lower, which means that this fish can contribute to food security in the Mediterranean.

Meagre is a robust species that thrives at temperatures as high as 20°C, which is ideal in the current scenario of increasing water temperature due to climate change. This species could constitute a valid tool to improve resilience of the aquaculture sector to global warming. Moreover, meagre is also more resistant to bacterial diseases experienced by other fish species.

Scientists are working to develop a modern meagre farming system that minimise pollution. For example, farming in land-based tanks instead of cages will allow us to collect and re-utilise the effluents instead of releasing them into the environment. However, the most important action to improve the sustainability of farmed species is to minimise the use of wild fish in feed and ensure traceability of feed sources, which helps to protect local ecosystems and maintain ecological balance. EU funding schemes are contributing to research focusing on developing the sustainable aquaculture of meagre. For example, the project EUFish\_SustainableGrowth, funded under the BlueBio program and co-funded by Xjenza Malta, has the goal to develop new feed for meagre containing under-utilised fish species such as bogue and Atlantic horse mackerel. These two species are considered by-products of fishery, and they are often returned to the sea as discards. Utilizing these fish for fishmeal and fish oil (main ingredients in aquafeeds) reduce waste production and ensure that nearly all parts of the catch are used effectively.

EUFish\_SustainableGrowth is led by Prof. Tiziana Pepe at the University of Naples Federico II. The Maltese aquaculture research company AquaBioTech Group is a fundamental partner of the project that designed the innovative aquafeeds. AquaBioTech Group's researchers, led by project coordinator Stela Karovic and head of RDI department Dr Simona Paolacci, carried out a sustainable harvest of bogue and Atlantic horse mackerel and they sent it to the Icelandic project partner Matis, which will extract fish meal and fish oil from the biomass. When these products will be ready, a Greek company will include them in aquafeeds following the recipe designed by fish nutritionist Dr Giovanni Marco Cusimano. When the feed containing this sustainable source of protein and lipids is ready, it will be tested on meagre in Malta.

EUFish\_SustainableGrowth also focuses on exploring consumer acceptance of meagre. This species is not well known, and it is offered occasionally in several European countries, mostly in superior restaurants and sushi bars. In supermarkets this species is not found easily. Buyers in supermarkets often require abundant portion-sized products, in pre-packed formats. This represents a market possibility for this species, that can be processed into fillets, and made available at low price in different ways, such as skin-on, skin-less, loins, pieces, cubes, breaded or battered portions.

Eating habits have drastically changed since meagre was first introduced into aquaculture in the late 90s. Consumer preferences have shifted towards more healthy, accessible, low-cost and easy-to-prepare



products due to social and economic changes. Family structures have changed with an increasing number of singles who demand portion-sized products. The enlarged low-income population prefer lower-priced food, and more people have access to higher education which makes them more health-oriented as they have better understanding risks associated with bad eating habits. Moreover, there is also an increasing number of consumers who pay attention to the sustainability of the products they purchase. The new preferences of consumers could be easily satisfied by meagre, which is a tasty, healthy and sustainable fish.

Meagre is still not largely consumed, but it definitely deserves a spot on the dinner table. If scientists and policy makers work together to promote this species and develop an increasingly sustainable farming system, meagre could soon become as common as seabream and seabass in the Mediterranean.

The Maltese partner in the project is part-financed by the Malta Council for Science and Technology through the BlueBio ERA-NET Cofund, under the Horizon 2020 research and innovation programme, grant agreement 817992. More about the BlueBio ERA-NET Cofund can be found on their page <https://bluebioeconomy.eu/>. EuFish\_SustainableGrowth is in accordance with the European objectives of the Blue Bioeconomy related to the careful exploitation of living marine biological resources through an ecosystem approach, in order to enhance the oceans' untapped potential in terms of biological resources.



Image of meagres. From: <https://dibaqacuicultura.es/species/meagre>

*\*AquaBioTech Group is not owner of the image*

Project brochure - <https://aquabt.com/wp-content/uploads/2025/02/ABTEUFishSustainableGrowth2024.pdf>

