

Title Influence of marketing and different land-based systems on gilthead sea bream (*Sparus aurata*) quality

Author R. Flos, L. Reig, J. Oca and M. Ginovart

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Abstract

Seabream (*Sparus aurata*) production is growing in the Mediterranean and the evaluation of its quality concerns both producers and consumers alike. In this area, most of the sea bream culture is carried out in cages but there is also production in land-based facilities. The culture system, and specifically its degree of intensity, greatly influences final product quality, through management during production, harvest and marketing processes. In this respect, land-based technology is more likely to affect final quality, both in a positive and in a negative way. In the present work the effects on seabream (*Sparus aurata*) of three inland culture systems are studied. The quality of wild fish is also studied and taken as standard because it is the quality better known to the consumers. Different aspects related to biometry, sensorial evaluation, degree of freshness (pH and water holding capacity) and chemical composition of muscle are assessed. The influence of post-harvest management on the sensorial quality of cultured and fishery caught fish is also studied when they arrive at the market. According to the results all parameters, i.e. sensorial, freshness and biometric measures, show some significant differences according to the culture system. A super-intensive culture system significantly affects the appearance of the fish, producing more compact fish without the characteristic colour pattern of the species. The fish cultured in two different semi-intensive systems show more similarities with the wild fish, both in colour and appearance. Some differences in the freshness indices are also found, with the super-intensive cultured fish the ones showing the lowest results. When evaluating the influence of post-harvest management on semi-intensive cultured fish and wild fish, all freshness indices except gills are affected, but both groups of fish tolerate the process in a similar way.