

AQUACULTURE

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Comparison of European sea bass (*Dicentrarchus labrax*) from organic and semi-intensive rearing systems

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The study aimed to compare biometric and rheological traits and chemical composition of sea bass coming from the organic and semiintensive rearing systems of an Italian fish farm (Veneto Agricoltura). The two systems differed for the diet, organic and conventional, while water conditions and stocking density were similar. After 18 months of rearing, 40 specimens (20 per rearing system) were slaughtered by immersion in ice slurry and analysed the day after catch. Biometric traits, dressing percentage and fillet pH, CIE L*a*b* colour and texture were measured. Chemical composition and fatty acid profile of the diets and sea bass fillets were analysed. Individual data were submitted to ANOVA by GLM procedure of SAS. Sea bass showed similar weight at slaughter (447 vs 421 g; P>0.05) and no difference in biometric traits or dressing percentage. Fillets showed similar texture profile, pH and L* and a* indexes, while b* index was higher in organic sea bass than in semi-intensive sea bass (1.39 vs 0.54; P<0.01). Fillet proximate composition did not change, while fatty acid profile differed according to the composition of the diets: in particular, organic sea bass showed higher proportion of saturated fatty acids (FA) (23.7 vs 22.2%), monounsaturated FA (33.4 vs 31.3%) and n-3 polyunsaturated FA (22.7 vs 14.4%) and a lower proportion of n-6 polyunsaturated FA (16.0 vs 29.1%) compared to semiintensive sea bass (P<0.001). The n3/n6 ratio was higher in the organic fish (1.42 vs 0.49; P<0.001). In conclusions, differences between organic and semi-intensive sea bass concerned their nutritional value and exclusively depended on the feeding regime.

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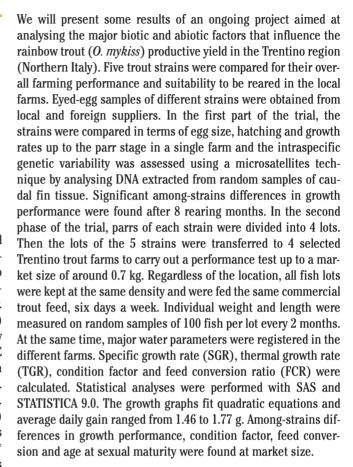
Growth performance of different rainbow trout (*Oncorhynchus mykiss*) strains reared in Trentino (Northern Italy)

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Comparative growth of the Mediterranean mussel (Mytilus galloprovincialis Lamarck, 1819) reared in three coastal areas of Sardinia

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Mussel culture is the most important aquacultural activity in Sardinia (Italy). Small specimens (42.5±3.1 mm shell length, 2.3±0.6 g wet meat weight) of *Mytilus galloprovincialis* of the same origin (Taranto) were grown in suspended culture from April to October 2010 in three different Sardinian coastal lagoons: 1) Calich, 2) Porto Pozzo, and 3) Tortolì. Several morphometric variables (i.e., shell length, shell height, wet shell weight, wet meat weight, and wet total weight) were measured monthly in 60 mussels from each of the experimental groups. During the same period, a number of hydrological variables (i.e., temperature, salinity, pH, and dissolved oxygen) were monitored

