

## HEALTH CONSTRAINTS IN FISH FARMING IN THE MEDITERRANEAN

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### ZDRAVSTVENA OGRANIČENJA ZA GAJENJE RIBA NA MEDITERANU

#### **Abstrakt**

Postoji niz razloga za rast ove grane industrije u regionu kao što su napredak u akvakulturi i tehnologiji proizvodnje; smanjenje ulova u ribarenju; povećanje učešća nerazvijenih zemalja koje su počele da se okreću od proizvodnje za lokalne potrebe ka izvozu; uspostavljanje programa i finansiranje razvoja akvakulture od strane nacionalnih i međunarodnih vlada i agencija; porast raznovrsnosti plasiranih proizvoda iz akvakulture kao i načina pakovanja i obrade; porast cene za mnoge proizvode kao rezultat povećane raznovrsnosti; širenje svesti o većem nutritivnom i zdravstvenom značaju proteina riba u odnosu na proteine suvozemnih životinja; povećanje konzumiranja morske hrane po glavi stanovnika širom sveta.

Proces intenzifikacije je često karakterisan visokom gustom riba u produkcionim jedinicama, lošim kvalitetom vode, akumulacijom patogena u proizvodnim sistemima i u okruženju, kao i prekomernim tretiranjem.

Kao rezultat ovoga, većina populacija riba iz intenzivnih sistema gajenja u Mediteranskom regionu se karakteriše hroničnim stanjem stresa i pojavom velikog broja infektivnih agenasa, u marinskim i slatkovodnim ekosistemima.

Infektivna oboljenja vodenih životinja (virusne, bakterijske i parazitske bolesti) su postala glavni limitirajući faktori u ekspanziji akvakulture u Mediteranskom regionu.

U ovoj prezentaciji detaljno ću izneti neke najopasnije i najčešće infekcije, neinfektivna oboljenja morskih i slatkovodnih vrste u mediteranskom regionu, kao i neke od veterinarskih procedura u prevenciji pojave i kliničke ekspresije bolesti u sistemima za gajenje vodenih organizama.

***Ključne reči:*** intenziviranje proizvodnje i prometa riba, bolesti riba u akvakulturi, lečenje

Culture of warmwater aquatic species in the Mediterranean region has sustained continuous growth through the past 20 years.

There are many reasons for the sustained growth of the industry in this region, including advances in aquaculture husbandry and production technology; the decline in the capture fisheries industry; increasing participation by undeveloped countries which are turning from domestic consumption to export of aquacultured products; establishment of programs and funding in support of aquaculture by national and international governments and agencies; a growing diversity of marketed aquacultured products relating both to available species and packaging/preparation options; higher-prices for many products as a result of greater diversity; nutrition and health data demonstrating the benefits of fish as a protein source compared to terrestrial farmed animals; and increasing annual per capita consumption of seafood worldwide.

This growth has led to rapid intensification of both existing and newly introduced freshwater and marine aquaculture facilities in the region.

This intensification process is frequently characterized by higher densities of fish in the production units, poor water quality, accumulation of pathogens within the culture systems, (e.g. recirculated tank systems and land based installations) or in the environment, sub-optimal feeding, mishandling and over treating.

As result, the majority of fin-fish populations in intensive culture facilities of the Mediterranean region are characterized by continuous and chronic levels of stress which in turn has led to the emergence of numerous infectious disease agents, both in marine and freshwater aquatic environments.

Infectious diseases of aquatic organisms (Viruses, Bacteria and Parasitic disease) have now become the most important limiting factor in the expansion of the aquaculture industry in the Mediterranean region.

In this presentation, I will review in detail some of the more serious and prevalent infectious and non-infectious disease entities affecting production of marine and freshwater species in the Mediterranean region, as well as some of the Veterinary procedures aimed at preventing the emergence and clinical expression of disease in the aquatic culture facilities.