Research in Biofloc Shrimp Aquaculture at UPV. Status of Southern European production

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Status of Southern European production



Main Shrimp Species at Europe





Status of Southern European production





30% of Biofloc Technology and ~70% of others systems



Status of Southern European production



France





Land-based shrimp farm: "Permaquaculture", co-culture of shrimp, micro-organisms and marine invertebrates in an indoor recirculating aquaculture system (RAS)

10.000 tonnes in 2030



Status of Southern European production



Israel





RAS system Up to 1000 tons

Spain





Pond farms

60.000 tonnes/year



Status of Southern European production



Feed Producers

France







Conventional and organic shrimp feed for Hatchery, Nursery and Grower under intensive culture

Extensive and intensive extruded shrimp feed



Status of Southern European production



Research at Universitat Politècnica de València (UPV)







Status of Southern European production



Research at UPV

Research group

- 3 Full Professors
- 1 Associate Professor
- Senior laboratory technician
- Informatic technician of aquaculture online course
- 3 Research technicians + 3
- 3 PhD students + 1













Status of Southern European production









Maximizing the value of biofloc aquaculture within the framework of circular economy: optimization of microalgae community and biofloc waste recycling

PhytoFloc







Optimization of shrimp production in biofloc with organic feed

BioFloCam



Status of Southern European production

OBJECTIVES



ioFlango

Evaluate the **Biofloc Contribution** to Shrimp production



To develop protocols to **preserve** the **biofloc** over time



To design feeds with **low protein** content and high fish meal replacement by alternative protein sources



































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Feed ingredients



Soy protein concentrate





Brewer's yeast













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PhytoFloc OBJECTIVES

Set up the environmental conditions for a **optimum microalgae** growth



To Test the impact on health status: Density and Hypoxia





BioFloCam

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OBJECTIVES



Impact of **additives** in biofloc and feeds



In vivo digestibility of raw ingredients



Formulation of **Organic** Feeds with high Fish Meal Substitution





THANK YOU FOR YOUR UNIVERSITAT POLITÈCNICA DE VALÈNCIA













Universidad de Alicante

aquaculture













Status of Southern European production







Heterotrophic bacteria

Nitrifying bacteria

Mesophilic Fungi

