AquaVitae

Case study 3 –Land Based IMTA

KEYWORDS

Abalone, sea cucumber, macroalgae, nursery, grow out, sustainable feed.

SPECIES

- *Haliotis tuberculata* and *Haliotis midae (*Abalone*)*
- *Holothuria forskali* and *Holothuria sanctori (*Sea cucumber*)*
- *Neosticophus grammatus (*Sea cucumber*)*
- *Anemonia sulcate (*Anemone*)*
- *Ulvella lens (*Green macroalgae*)*
- Diatoms
- *Ulva sp* and *Gracilaria sp (*Green & red macroalgae*)*

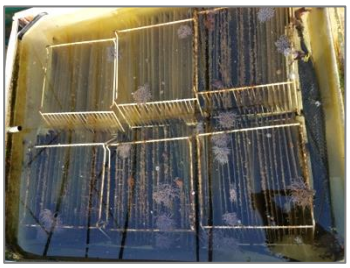
GEOGRAPHICAL BOUNDARIES

Activities of Case study 3 take place all along the Atlantic in private and public institutions located in France, Spain and South Africa.

GOALS

- Develop new, innovative, land-based production systems and production processes for multi-trophic production;
- Demonstrate the added value and environmental sustainability of land-based IMTA systems.
- Improve resilience of production and strengthen capacity for adaptation to ocean warming and coastal acidification.
- Investigate market potential and value chains for new and/or high added value products
- Demonstrate economic and societal acceptability of the IMTA concept and develop policy incentives
- Promote collaboration of Academia and Industry and knowledge exchange between Europe and countries bordering the South Atlantic.






AT A GLANCE

- **Project period 2019-2023**
- **Abalone hatchery and nursery processes along the Atlantic**
- **Abalone grow out in Land based IMTA systems integrating sea cucumbers and macroalgae**
- **Life cycle analysis of Land based IMTA systems**
- **Development of innovative and sustainable feeds**

Activities take place in France, Spain and South Africa

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CHALLENGES

- Improve production processes in Land-based IMTA systems as:
  - The methodologies are emerging
  - Data is required from different systems to establish regulations
- Demonstrate the environmental sustainability and resiliency of land-based IMTA systems
- Offer new or added value products for aquaculture markets
- Update and adapt policy incentives for these production systems
- Harmonize production methods and regulations along the Atlantic

EXPECTED RESULTS

- Develop new, innovative, land-based production systems and production processes for multi-trophic production
- Demonstrate the added value and market potential of products from Land-based IMTA systems.
- Demonstrate the benefits of Land-based IMTA systems in terms of circularity and environmental sustainability.

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EXPECTED USERS

- Private Institutions that produce invertebrates and macroalgae
- Government and policy institutions that regulate aquaculture licensing and monitoring
- Public institutions that perform research on invertebrate aquaculture, macroalgae production and integrated production method

WORKPLAN

A series of trials will be run through the lifetime of the Aquavitae project during different production stages (hatchery, nursery and grow-out) in land based IMTA systems located at different locations in France, Spain and South Africa. The trials during the early stages aim at establishing reliable and consistent hatchery and nursery protocols, contributing to improve the resilience of theses production phases. The trials during grow out production process will integrate novel species and novel feed within the existing Land Based IMTA production systems in the different regions with the aim to optimise growth rates, environmental mitigation, profitability and societal acceptability of the products.

TEAM

1. Universidad de Las Palmas de Gran Canaria (Spain)
2. Rhodes University (South Africa)
3. Alfred Wegener Institute (Germany)
4. Galway Mayo Institute of Technology (Ireland)
5. France Haliotis (France)
6. Marifeed (South Africa)
7. Wild Coast Abalone (South Africa)

LINKS

CS3 Land Based IMTA:
https://youtu.be/vK8N61i2Yjg

CS3 Land Based IMTA :
https://youtu.be/VxslJRwX3ag

IMTA & Aquaponics:
https://bit.ly/3uRFNlH

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