

RAS Technology: SHRIMP RAS AND SORTING SOLUTIONS FOR HIGH INTENSITY SHRIMP FARMING

Eran Hadas | Aquacultuer Europe, Vienna | September 2023



Complete end-to-end solution





ECO-Shrimp Detailed design For production unit 100-500t/y ECO-Sys Remote monitoring & Al For smart RAS shrimp production



ECO-Loop RAS Water Treatment Tailored for shrimp needs



ECO-Feed Unique formula For clear water shrimp production







Year round productivity – independent from the environment, continues marketing



Close to market – "Farm to table" – can be installed anywhere

Optimal use of resources – addressing challenges of CAPEX & OPEX in RAS



Sustainability - Low environmental footprinthighest yield per sqm, closed loop



Full biosecurity control - disease free, antibiotic & chemical free

Healthy and tasty – no off flavors





Hands on R&D (20 batches) – vast experience with solid biological data:

- 15kg/m³>densities, up to 65kg/m³ annually
- 14-16 weeks PL9/12 22-25g

Built to scale – engineering expertise:

- Modular design can be multiplied (100-500t/y)
- Industrialized approach reduced footprint, lower civil cost, can utilize existing buildings

Smart Tank structure – US Provisional +PCT

- Maximized surface
- Complete integration of feed, harvest & sensors





Shrimp Grading



Shrimp grading is not a common practice

- Labor intensive, handling problem.
- No proper machinery.

What are the incentives to grade shrimp?

- Product quality: small animals -low value
- Lower total productivity of production units.
- RAS must be supper intensive and super effective.







Conclusions

- Grading affects shrimp population.
- Method of grading affects shrimp population.

Open questions

- When is the right time for grading?
- What is the best method for grading? Passive? Active?
- Based on this data development of the right machinery and protocols.









Shrimp Production Process

PL9-12: Weekly stocking 1 of 15 tanks (Ø~8.4m)

100t/y unit illustration

Market size: Weekly harvest 1 of 15 tanks after 15 weeks 20-25 gr ~2 tons/ week





- Remote monitoring package
- Al biomass assessment
- Online data and alerts
- Advanced management tools
- Online support from professional team (saving labor cost and reducing operational risk)
 - To be provided to ECOshrimp farms, partners and additional production facilities in EU, US, etc.







Smart closed loop Water treatment solution

Tailored to remove high TSS levels (small particles of waste and access feed), 30c, salinity, etc.

 Proprietary design reducing cost and regulatory burden (ESG)

To be provided to ECOshrimp farms, partners and additional production facilities in EU, US, etc.







- Proprietary Feed in collaboration with Zemach feed mill
- △ Providing all nutritional needs
- △ Can be licensed for local production.

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vannamei Shrimp

Complete sinking Feed for Litopenaeus vannamei shrimp



2mm extruded pelletsSinking

Raw materials:

Plant products and by-products, Poultry by-products, Fish hydrolyzed proteins, Fish oil, Mixed Oil, Vitamins and minerals, Amino Acids, Preservatives: E282, E260, E200.





Our Vision

Sustainable & safe shrimp production

Bringing fresh, healthy, antibiotic and chemical free, tasty shrimp to the market



Want to join us?

Contact Us

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