

EDITORIAL BOARD

Editor-in-Chief

Dr. Jesu Arockia Raj

Associate Editors

Dr. S. Seetharaman, Dr. M. Dhanaraj & Mr. V. Gopi

International Editorial Board

Dr. Ajith Kumar, Principal Scientist, ICAR-National Bureau of Fish Genetic Resources, India

Dr. Aziz Arshad, Professor, University Putra Malaysia, Malaysia

Dr. Caterina Faggio, Assoc. Professor, University of Messina, Italy

Dr. Dina Zilberg, Professor, Ben-Gurion University of the Negev, Israel

Dr. Fatimah Md Yusoff, Professor, University Putra Malaysia, Malaysia.

Dr. Harikrishnan Ramasamy, Asst. Professor, Pachaiyappa's College for Men, India

Dr. Ki Choon Choi, Scientist, National Institute of Animal Science, South Korea

Dr. Mariadhas Valan Arasu, Assoc. Professor, King Saud University, Saudi Arabia

Dr. Marina Paolucci, Professor, University of Sannio, Italy

Dr. Mohsen Abde-Tawwab Ibrahim, Professor, Zagazig University, Egypt

Dr. Preetham Elumalai, Asso. Professor, Cochin University of Science and Technology, India

Dr. Vinu Siva, General Manager, Amazing Biotech Pvt. Ltd., Tamil Nadu, India

Disclaimer

The magazine is devoted solely for disseminating and reflecting technical research based news and views for the benefit of all relevant readers and does not promote any special personal, cultural or social aspects has any kind of affiliations. All opinions, views and articles published in the magazine are those of the respective authors & contributors, and do not reflect those of the publisher/editors. The magazine is published as an educational service Best-Effort basis. The publisher & editors do not assume liability for any errors or omissions in any content or printing.

AQUAFOCUS

Dedicated to Aquaculture Research & Development

English Quarterly

June 2025

Volume 3 / Issue 2

TABLE OF CONTENTS

1. Aquaponics as a Sustainable Solution for Climate-Resilient Food Systems	7
2. From Pond to Plate: Blockchain's Role in Traceable Aquaculture	11
3. Microalgae – A Solution for Biological Carbon Capture in Aquaculture	15
4. Adapting Middle Eastern Aquaculture Technologies for Water-Scarce Regions in India: A Sustainable Approach to Food Security	20
5. The Necessity of Species Diversification in Aquaculture	27
6. "Murrel: India's Next Aquaculture Superstar – Why Farmers Are Switching Fast"	31

EDITOR'S LETTER

Dear Readers,

It gives me great pleasure to welcome you to this edition of AQUAFOCUS, where we bring together some of the most transformative ideas shaping the future of aquaculture. This issue reflects the spirit of innovation and responsibility that the sector needs as it grows to nourish a changing world.

We begin with aquaponics, a climate-smart system that blends aquaculture and hydroponics to build resilient food production models. Alongside it, we explore the advances in biomanufacturing enzymes that are helping farmers to improve feed efficiency and reduce costs.

Microalgae research highlights its dual role in carbon capture and sustainable feed production. Lessons from Middle Eastern aquaculture, particularly in water-scarce regions, offer valuable insights for strengthening India's food security strategies. At the same time we revisit the necessity of species diversification, a topic central to resilience and market stability.

This edition also covers the importance of Murrel in India as Next Aquaculture Superstar and Why Farmers Are Switching Fast in its breeding and seed production. And finally, we take you inside AquaEx India 2025, where technology, policy, and market opportunities converged to chart the next phase of industry growth.

We also proudly spotlight the IFT Expo 2025, a landmark event that unified India's fisheries and aquaculture stakeholders under one roof. From drone-assisted farming demonstrations to policy dialogues on blue financing, the expo showcased the synergy of tradition, technology, and trade.

Each feature is more than an article, it is a conversation starter, an invitation to think differently about aquaculture's role in our shared future. I hope these pages spark fresh ideas, strengthen your resolve, and reaffirm our collective responsibility to ensure that aquaculture grows in harmony with people and the planet.

With Regards,

Dr. Jesu Arockia Raj. A

Editor-in-Chief

AQUAFOCUS