

AQUAFOCUS

Dedicated to

Aquaculture Research & Development

English Quarterly Magazine

March 2023

Volume 1 / Issue 1

Table of contents

Editorial	04
Nanovaccine for Tilapia	07
Aquaculture for Sustainable development	09
Marine ornamental aquaculture in India	13
A new star born – FAITT	18
Launch ceremony of Nano Aquaria	22
FS FeedTM: Larvae new live food replacement	25
Awareness Workshop on Spirulina algae	27
Aquaculture Events	28
Cresco Algae Fort	29
Postbiotics & application in aquaculture	31
Fish production potential in India	33

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.

EDITORIAL



Greetings !

*"Give a man a fish and you feed him for a day.
Teach him how to fish and you feed him for a lifetime!"*

- An Old Wisdom Proverb

**Dr. Jesu Arockiaraj, Highly Acclaimed Eminent Scientist with Stanford University World Ranking in Top 2%.
Received Young Scientist Award by Government of India and Government of Tamilnadu.**

In consonance with and to uphold this scintillating old adage and brilliant Chinese Proverb, a New Species was recently born in the vast ocean of aquaculture operations – "FAITT".

Having 6 scintillating jewels in its Crown, FAITT aims to proactively foster Innovative Research and development and impart professional training to artisans and all interested stakeholders in the aquaculture industry. In juxtaposition with this, it will help spread awareness and enrich cognizance on the various facets of aquaculture through workshops, seminars, publications, Special Events, etc.

In this nascent issue, FAITT brings you well-curated, discerning and insightful articles in the Aquaculture trade and operations, by eminent academics and research scientists.

India has a well established Aquaculture industry over many decades and a robust seafood export market. Aquaculture Produce is one of the scintillating stars in Indian food exports! The Aquaculture industry is progressing well in India despite the pandemic situation. As per reports, Tamil nadu seafood exports fared pretty well, earning \$758 million in exports between April 2021 and November 2021, nearly 80% of the \$973 million export target set for 2021-22 by the Centre.

A lot of Investments are also pouring into this vibrant sector! US Aquaculture firm, The Fishin' Company is slated to invest about Rs. 1,000 crores in Telangana.

Tamil Nadu is also on the upswing. Tamil Nadu alone contributes to 15% of total national seafood with Shrimps being the main export item. Seafood exports have been identified as one of the 'champion' sectors for boosting exports and helping the state achieve its \$1 trillion economy target by 2030. This is aided by active encouragement of the current Tamilnadu Chief Minister and his proactive Government officials. In October 2021, the Chief Minister inaugurated "Institute of Paraprofessional Aquaculture Technology" at Muttukadu near ECR, Chennai. This will help to train skilled artisans for the aquaculture industry with 3 Year degree and diploma programs. He also inaugurated a project on freshwater ornamental fish breeding in Trichy.

EDITORIAL

Also, as per reports and Industry experts, seafood exports from Tamil Nadu can touch Rs.15,000 crores and more in the next five years, thus offering a huge potential to scale up the aquaculture industry .

Sustainable aquaculture is a cardinal aspect to promotion of aquaculture industry in India. We need to set up innovative mechanisms and creative processes for breeding of fishes, shrimps, Algae – Spirulina, etc. Sustainable aquaculture processes help improve both quality and quantity of the farm produce along with positive environmental impacts, social community development and boosts economic growth, thus ensuring long-term benefits to all stakeholders.

In juxtaposition with this, disease management is a key aspect and of cardinal importance in Aquaculture Also one needs to be on guard against certain indigenous challenges , especially natural and man-made bottlenecks. For instance, African catfish, a banned species, introduced into some Indian states from Bangladesh for aquaculture purposes in the early 1990s is spreading rapidly in Tamilnadu and some other states. During heavy rains induced floods, these fishes escape into the ponds and get into the rivers and lakes and marshlands and breed very quickly. Being a predatory and an invasive species, they pose a potential threat to other aquaculture farmers.

Also, a recent virus outbreak, including white spot syndrome virus in thousands of hectares of aquaculture farms in many parts of the world, is of major concern to the shrimp farming sector.

On the other front, a lot of farms are being converted gradually to aquaculture in small towns and villages, This being a good sign and versatile strategy for aquaculture industry growth, it also pays to consider the UN – FAO EAA strategy of ‘Ecosystem Approach in Aquaculture’, wherein the farms are first assessed for their overall operational capacities and if the aquaculture process can be carried without any kind adverse influence on surrounding Ecosystem and Biodiversity aspects.

Finally, it is great time to look forward to a host of opportunities and advancements in this scintillating year 2022 – a UN designated “International Year of Artisanal Fisheries and Aquaculture”! The use of technological initiatives like Internet of Things (IoT) platforms and digital data analytics in aquaculture ponds will leapfrog the industry to greater heights in the years ahead!

Time to begin to change the future of Aquaculture now!

Regards,

Jesu Arockia Raj A

Editor-in-Chief,
AQUAFOCUS