# WORLD FISHERIES DAY 2021 AWARDS

## Best Technology Infusion/Innovative Idea – Mayank Aqua Products

### BACKGROUND:

Mayank Aquaculture Pvt. Ltd. (MAPL) is one of the pioneering companies in the field of shrimp farming with 250 hectares of the shrimp farm in Gujarat. The farms are spread across Gujarat covering Surat, Bharuch and Bhavnagar districts. Their Aquaculture probiotic product line, "VIVALINE" was launched in the year 2013. The product line supports disease prevention and sustainable shrimp farming. VIVALINE formulated the products such as soil, water, and gut probiotics in collaboration with France based company HTS BIO. The products help curtail the use of antibiotics and other banned products in shrimp aquaculture. He further founded Mayank Aqua Products in 2019 where he pioneered the Multiphase Indoor Shrimp Farming technology which involves indoor rearing of shrimp post larvae under complete biosecurity protocol.

Dr. Manoj M. Sharma, Director, Mayank Aqua Products is a shrimp farming professional having expertise in sustainable shrimp farming. He is a key person behind the Blue Revolution in Surat District, Gujarat and has helped in the transformation of coastal wetland into one of the most viable farming areas for shrimps, proving livelihood to thousands of people. He has over 25 years of experience in planning and execution of shrimp farming, pond management, FFPO formation and management, formation of clustered shrimp farming and designing of large shrimp farming areas.

Dr. Manoj was born in Nanded, Maharashtra, and has always had keen interest towards fish since childhood. He pursued his masters in Fisheries Management from the Central Institute of Fisheries Education (CIFE), Mumbai. In 1994, he came to Surat with only Rs 500/- scholarship money in his pocket to look for jobs. He met Shri Pradip Bhai Navik the then Sarpanch of Dandi, in 1995 and after convincing him, he started brackish-water shrimp culture with Black Tiger Shrimp (*P. monodon*). After having worked for three years in Gujarat, he convinced and proved shrimp farming to the local farmers and officials of the Department of Fisheries, Government of Gujarat by practically demonstrating shrimp culture.

The efforts and contribution of the Mayank Aquaculture Pvt Ltd. (its unified companies Mayank Aqua Products & VM Shrimplets) towards the fisheries sector in Gujarat's coastal belt have made the shrimp farming sector as one of the largest aqua business in Gujarat. Further, it supported the transformation of the coastal wasteland into one of the most viable shrimp farming business providing livelihood to thousands of people in Surat district of Gujarat. Having seen successful results, Government of Gujarat has allotted large extent of brackish water land close to 5000 ha to the farmers.

He is vocal towards creating a drive to increase domestic consumption of shrimp and in pursuit of the same has launched Zhingalala Restaurant for both local and exotic cuisines in 2019 with "Pond to Plate" as its core vision. The first of its kind pesco-vegetarian restaurant serves only

farm raised shrimps in over 45+ shrimp delicacies. Dr. Manoj wishes to utilize the restaurant to popularize consumption of high-quality farm raised shrimp.

He is a thought leader and has been invited as speaker around the globe (i.e. Latin America, Europe, China, Iran, Africa, Sri Lanka, Thailand, and Indonesia) to discuss about the better management practices in the shrimp farming and role of probiotics in the shrimp farming and about the successful shrimp farming operation in Gujarat which can help an individual farmer to improve his/her shrimp culture practices. He also serves as the General Secretary and founder member of SAFA (Surat Aquaculture Farmers Association). With a mission to bring all shrimp farmers together to carryout sustainable shrimp farming in a co-operative way, SAFA has helped bring about a Blue Revolution in Surat district.

## MULTIPHASE INDOOR SHRIMP FARMING:

There was a downtrend of shrimp farming in India due to the reduction in productivity of the ponds. The major issues being faced by the shrimp farmers includes, less seed (PL) survival, Slow growth - High FCR, Running Mortality, White gut/White feces, Enterocytozoon Hepatopenaei (EHP) and White spot syndrome virus (WSSV). Further, the current pond nurseries had their limitations i.e. chances of cross contamination within ponds and nursery including but not limited to chances of crop failure due to area specific contamination, infection (Bacteria and Viral) due to limitation in water treatment, compromise of culture area being converted into nursery.


Multiphase Indoor Shrimp Farming involves separate indoor rearing with seven step water treatment during the critical period of first 40 days. There is complete bio-security till dispatch. Further there are separate indoor domes for Vannamei, Monodon and Marine Fishes. At the end of first 40 days, the biosecured and disease-free seeds are transferred to grow out ponds. This methodology with good bioremediation protocols shall allow the seed to grow in the grow out ponds without any water exchange for the next 60 days. The Vannamei crop usually takes about 120 to 140 days for the full cultivation period but with the MISF, the total time reduces. The decrease in total number of days of the cultivation process allows the farmer to produce in a more efficient way with more grow cycles throughout the year. The technology also facilitates availability of seeds across all seasons. MISF can be in one to three phase system – 20:30:50 days rearing system.

The Multiphase Indoor Shrimp Farming technology allows the farmer to have cost-effective and disease-free seed throughout the year, makes it easy to take two crops per year by doubling the production, reduces the duration of crop production with a net reduced cost of production and creates a competitive advantage with an ability to produce during off season thus ensuring better price.

## IMPACT AND VISION FOR THE TECHNOLOGY:

The Multiphase Indoor Shrimp Farming method allows the farmer to shorten the days of shrimp culture by using multiphase nursery rearing and supplying disease free robust post larvae that are 30 to 40 days old. It efficiently reduces the days of culture and cost of production. It further enables an all-season crop and guarantees disease free culture throughout the year. The MISF technology has been designed and developed to overcome the biggest risk factor in shrimp farming. MISF seems to mitigate all risk factors to help develop and rear healthy post larvae in a complete bio-secure indoor system for 35 days to reduce disease occurrence.

India is one of the largest producers and exporters of shrimps in the world and it needs to innovate on new methods and technologies that can help address the challenges associated with the shrimp sector. The MISF Technology helps the farmers confront these existing disease challenges by supplying 35 days old bio-secured, healthy, and robust post larvae which can help them increase their production output. Further, in the conventional technique stocking with PL 8 the minimum days to complete the crop is 120 days and mostly 60 to 70 percent farmers practise single crop strategy. The new innovative concept of indoor multiphase, there can be year around seed production and farmers can take two crops with PL 35. This enables the farmers to double the crop they can do in a year. This in turn shall support India to increase the total production of shrimps and help farmers get better economic returns on their efforts.

## AWARDS & RECOGNITIONS:

Over the years, the contribution of Mayank Aquaculture Pvt. Ltd. and Dr. Manoj M. Sharma and his companies has been well recognized, and he has established himself as an expert in shrimp farming in the country. In recognition of his work and contribution towards the fisheries sector, the firm has been awarded numerous accolades over the years with some prominent ones being:

- Fish Farmer's Day Award – Best Shrimp Farmer 2005
- India's Small Giant Award 2014 by NDTV
- Award of Honour from the College of Fisheries – Ludhiana Punjab 2019
- World Fisheries Day Award 2017
- AgriVison Award 2021
- World Fisheries Day Award 2021 for Technology Infusion/Innovation Ideas

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