



WORLD FISHERIES DAY 2021 AWARDS



Best Marine Finfish Hatchery – M/s MSR Aqua Private Ltd. Unit II

BACKGROUND:

Mr. Mediseti Venkataramana established MSR Aqua Private Limited Unit II in the year 2017-18 in East Godavari district, Andhra Pradesh.

The unit consists of a hatchery spanning over an area of 2.2 acres along with a lab facility. The facility has a ten-member team which basically focus on rearing Silver Pompano, Indian Pompano, Cobia and Sea Bass. The production capacity of the unit is 50 mn spawns and 3.5 mn PL.

Mr. Venkataramana received his first financial assistance of Rs. 103.45 lakh from NFDB and the ICAR-CMFRI provided technical support for the modification of the existing shrimp hatchery of M/s. MSR Aqua Hatchery Pvt. Ltd, Kakinada, Andhra Pradesh by providing suitable designs.



Picture 1: MSR Aqua Hatchery, Kakinada,

Mr. Mediseti Venkataramana also got financial assistance of Rs.4.53 crores from other sources for enhancing the facility infrastructure such as renovation, addition of machinery and operational expenses. Hands-on training to the technicians of the hatchery and technical support on different aspects viz., brood stock maintenance, cannulation, tagging, live feed culture, larviculture and nursery rearing was provided by ICAR-CMFRI, Mandapam Regional Centre. The scientists of ICAR-CMFRI, Mandapam made periodical visits to the M/s. MSR Aqua Hatchery Pvt. Ltd, Kakinada, Andhra Pradesh for monitoring the establishment of recirculating aquaculture system (RAS) and providing technical support in brood stock development of cobia, silver pompano and Indian pompano.

INFRASTRUCTURE:

The established facility is installed with an annual capacity of multi species marine finfish of 50 million spawn/year and 3.5 million PL/year. Various spawn production activities have been taken up since 2018 and have resulted into spawn production of 42,500 silver pompano in 2018 to 32,500 silver and Indian pompano in 2019. The silver pompano fingerlings were distributed to fish farmers in Guntur, Yelamanchili, Nellore, Chirulu and Kaduluru in Andhra Pradesh. Production reached new heights with production of 22.81 lakhs of Sea bass fingerlings from 552 kg of brood stock giving Rs 102.69 lakhs returns.





Picture 2: Brood stock Tanks fitted with RAS

MAINTENANCE AND STRATEGIES ADOPTED IN THE HATCHERY:

M/s. MSR Aqua Pvt Ltd., Unit – II Multi species Marine Finfish hatchery is currently maintaining brood stock of Cobia (*Rachycentron canadum*), Silver Pompano (*Trachinotus blochii*) and Indian Pompano (*Trachinotus mookalee*) in the brood stock holding tanks enabled with recirculation aquaculture systems (RAS). The brood stock is fed with wet feeds like squid, crab meat, shrimp and formulated feeds. Periodic prophylactic disinfection protocols are followed to avoid parasites and pathogens infection. CMFRI, Mandapam, Tamil Nadu scientists tagged & breed the fishes and continuously monitored through cannulation for their maturity and natural spawning.



Picture 3: Brood stock of Asian Seabass



Picture 4: Hormonal Priming

The seabass brooders were fed with standardized brood stock diets.

Brood Stock Management a critical focus area where brooders are quarantined, acclimatised, reared & bred. The hatchery follows standard protocols for breeding and tagging to minimise the stress. High energy brood stock diets and hormonal priming are used to accelerate gonadal maturity. Stringent standard operating procedures are followed at every stage of brood stock development, induction of spawning, breeding, larval rearing and live feed culture to ensure Best Management Practices (BMP) were adopted for maintenance of the hatchery operations. The lab in the hatchery incorporates a full-fledged disease diagnosis

lab facility for continuous monitoring of the brood stock health, seed quality and water quality analysis laboratory, for ensuring the brood stock and seed rearing environment quality.

Technicians in the farming areas were deployed and technical assistance was imparted to farmers for a successful and quality fish production.



Picture 5: Brood stock Holding Facility



Picture 6: Tagging of brood stock

To ensure safety of the environment, effluent treatment system (ETS) for treatment of wastewater from the hatchery has been established as per the discharge water quality standards prescribed by the CAA. Packing facility is equipped with medical grade oxygen supply and trained staff has been hired to pack the fish for transportation to farming locations with minimal stress.



Picture 7: Packing of fish fingerlings



Picture 8: Transport of fish fingerlings

MARKETING:

The hatchery supplies spawn or PL, yolk sac larvae, brine shrimp nauplii (BSN) feeding stage larvae and fingerlings through their incredible marketing linkage with hatcheries and nursery rearing units of Andhra Pradesh and Karnataka.

With such consistent and dedicated efforts, Mr. Venkataramana is keen to start multi marine species culture in recirculating aquaculture system (RAS) and supply spawn, fry, fingerling across India.

OUTCOME OF THE HATCHERY OPERATIONS:

The hatchery has produced about 23,59,400 fingerlings during the year 2018-19 to 2020-21, of which 22,81,900 numbers of Asian seabass fingerlings, and supplied to farmers for nursery rearing and farming. This has generated a revenue of Rs. 106.19 lakhs in the last 3 years. The M/s. MSR Aqua Hatchery is serving as a model hatchery for multispecies marine fish seed production in the country.



Picture 9: MSR Aqua Pvt Ltd awarded on the occasion of World Fisheries Day 2021
