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Spawning success stories with backyard aquaculture



A little care, proper planning and timely technical advice can bring amazing results for any farmer, according to Dr. V.A. Parthasarathy,

Director, Indian Institute of Spices Research, Kozhikode, Kerala. In that context, farmer Mr. K.K. Manoj's backyard freshwater prawn hatchery unit at Atholi in Kozhikode district, Kerala is a model worthy of emulation

"I started with tiger shrimp farming near my house, and later switched over to brackish water breeds such as Pearl Spot, Mullet, and others as these fishes are available aplenty in the lakes near my house. I approached scientists at Peruvannamuzhi Krishi Vigyan Kendra (KVK) for help," he says.

Parent stock

Knowing that brood stock (mother prawns) is available in the pond, the scientists put forward the idea of setting up a hatchery for breeding giant fresh water prawn in the farmer's backyard.

"Even though a huge demand exists for post larvae of prawns, lack of availability, and the need for a huge investment make it difficult for many aspiring prawn farmers. Climate change, and many other contributing factors severely affect the natural breeding of fresh water prawns

in many areas. The only solution is to breed them in captivity. So we trained the farmer to breed them in the backyard in small tanks,” says Dr. B. Pradeep, Subject Matter Specialist (Fisheries), KVK, Peruvannamuzhi.

Last year, Manoj set up a hatchery in his backyard on an experimental basis, the first of its kind in the Malabar area. Though these prawns are grown in fresh water, they require brackish water containing a specific salinity level for eggs to hatch, and grow through the larval period.

“As per the advice of the scientists, I set up an artificial pool near my house using silpolin sheets and maintained the salinity of water in the tank at optimal level to create an artificial environment for spawning and larval development,” says Mr. Manoj.

Thin survival rate

“Around one lakh eggs are produced by a female prawn at a time, but only ten per cent survive to the post larvae stage. In the larval stage, they are fed with Artemia nauplii, a primitive, aquatic species largely found in salt water. Mr. Manoj's determination and hard work plus timely scientific intervention showed good results,” says Dr. Pradeep

“On an experimental basis I sold around 5,000 post larvae prawns in the first stage,” says the farmer proudly and adds “I am planning to expand the hatchery.” According to him, freshwater prawn farming in the state faces a bright future, if the potential of lakes and granite quarries in the area are exploited properly.

Felicitations

Recently, the Indian Institute of Spices Research felicitated Mr. Manoj at its annual Karshika Sankethika Darshanam 2011, a farmers mela and technology expo for his innovation in developing low cost fibre cages for rearing Pearlscale fishes in captivity.

“Normally, these fibre cages are made of fibre wire mesh. PVC pipes are used to float these structures on water. Since PVC pipes are very costly, I used empty plastic bottles to replace them. The bottles help the cage to float on the water surface,” explains the farmer.

The production cost for a standard fish culture cage works out to more than Rs. 3,000 rupees, whereas the low cost model is priced at only Rs.1,000. With a full-fledged Pearlsport hatchery unit, the innovative farmer produces around 20,000 fingerlings each breeding season.

“There is a good demand for Pearlsport from small scale farmers. I am getting around Rs. 5 for each fingerling,” says Mr. Manoj.

Feasible

According to Mr. Manoj, pearlsport farming in captivity is profitable as it requires minimum investment and harvesting is easy. Even small scale farmers and women can grow them in the backyard.

“You may find it consuming a lot of time, requiring tremendous care and attention, but more than a livelihood, it is an awesome experience, if you really like the thrill of fish rearing,” says a beaming Mr. Manoj.

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