

START UP PROGRAMME- FISH FARMING IN THE CAMPUS

‘AQUAPHILIA’

Objectives:

1. Develop self-employment skills in students through fish farming
2. Hands on experience in maintaining the water quality while culturing fish
3. Develop a proper feeding regimes for culture fishes
4. To assess the suitability of culturing the indigenous endangered food fish ‘murrel’

Context

Tilapia has taken an important role in the commercial fish farming business sector. The weather and environment of our region is very favorable for tilapia fish farming. As the tilapia is one of the very testy and fast growing fish species, so it has a great demand to the fish farmer and consumers. It has made a revolution in the field of [fish farming](#). Due to the high rate and demand of tilapia in local and foreign markets, the farmers are being more interested in this fish farming. Efficiency of taking [natural feed](#), interests in supplementary feed, surviving in adverse natural condition and for disease resistance power of tilapia the popularity of it is increasing to the farmer. In this context, the department is aimed to practice fish farming in the campus as a start up programme. The programme is named as ‘Aquaphilia’

Suitability of tilapia for tank culture

Tilapia has a number of characteristics that make them attractive for tank culture. They can tolerate the crowding and handling that is required in a tank-based facility. Their heavy slime coat protects them from abrasion and bacterial infections that would adversely affect many other fish. Tilapia grow well at high densities in the confinement of tanks when good water quality is maintained, but they are also amazingly tolerant of poor or variable water quality. Tilapia can be grown on diets that are high in vegetable matter, such as soy protein, which is a more renewable and sustainable ingredient than fish meal derived from wild fish catches.

Department has initiated a startup programme, fish culture in the campus in June 2018.

Tank Preparation and budget allocation

The very idea of starting fish farming in the campus was initiated by Dr.Sr.Mariaette, Principal, and Head, dept. of Zoology, Dr.Kezia Kuruvilla in 2017-2018. Initial fund for setting up the tank came from the management and department fund. Initial investment includes construction of tank, motor for water pumping and an iron grill to keep the tank closed. The total initial investment is Rs.25,000/- (Rs.10,000 from department fund and Rs. 15,000/- from management). The faculty, non-teaching staff of the department and other non-teaching staff of the college are involved in stocking and feeding procedures. Formulated pelleted fish feed was purchased from the local aquarium. Coconut oil cake and the algae *Azolla* were also given as feed.

Fish stocking

20-7-2018: Fish pond was set up and kept ready for stocking in March-april 2018. 75 Fingerlings of Tilapia were collected from fish farm at Marathakkara and released in the pond in 20-7-2018. Feeding was done by the staff and students two times a day.





Fish harvesting

25.01.2019 : Fishes attained marketable size in January 2019. Harvesting programme was inaugurated by the Principal, Dr.Sr.Mable on 25.01.2019 and sale of the catch was done on the same day. Faculty members, students and sister staff purchased the catch. An angling programme was also organized for staff and students of the college in connecting with the harvesting. 15 kg of fish were captured. The fish were sold for Rs.250/- per Kg. since this is a first time attempt, around 3 Kg fish were given to the staff of the college who helped in setting up the tank and maintenance, free of cost



Fish harvest inauguration by the Principal



II phase of stocking

150 fingerlings of tilapia were collected from the fish farm and stocked in the pond on 12th February 2019.

Fish harvesting

22-07-2019: Fish harvesting- Harvesting was done and fish was sold among the faculty of various departments



III phase of stocking

125 fingerlings of tilapia were collected from the fish farm and stocked in the pond on 27th November 2019.

Fish harvesting- Harvesting was done and fish was sold among the faculty of various departments on 24-7-2020





IV phase of stocking of young ones of Murrel (*Channa sp.*)

23-6-2022: After consulting with the aquaculture expert from the Marathakkara Rosen Fisheries, Mr Sebastian (BoS member), it was decided to start the culture of indigenous endangered food fish, *Channa sp.*(murrels) which was once commonly available in our paddy fields, ponds and ditches. Recent studies have shown that the population of this indigenous food fish is declining on an alarming rate due to many anthropogenic activities including pond filling for building construction, pesticides directly used in the paddy fields, pesticide run off paddy fields to the nearby water bodies. outbreak of various protozoan/fungal infections in murrels also augmented their decline in natural habitats. This fish is of great demand in the local market and fetched good prizes too. The fingerlings of murrels were collected from the Rosen fisheries and 60 numbers were stocked in our fish pond.

Feeding, water exchange and caring was done by the students, non-teaching staff Mr Opy and our lab staff.





Stocking and feeding of murrel fingerlings in the culture pond

Evidence of Success: Moderately good catch is obtained. Students could easily learn the fish culture techniques and feeding management methods by this practice. This practice also enabled the students to develop fish culture as a self-employment opportunity

Problems Encountered and Resources Required : Tilapia fish did not gain much weight due to limitations in the culture pond. For getting an optimum growth of Tilapia for a given period of time, ie, 5 months, the area of the pond is very important rather than its depth. A shallow pond having more surface area is suitable for Tilapia farming. As Our tank is deep (7 feet depth), we have planned to switch on to Murrel farming and expecting a better return.

Notes : nil