

NOTES

CULTURE OF *GRACILARIA EDULIS* IN THE INSHORE WATERS OF GULF OF MANNAR (MANDAPAM)

V. S. KRISHNAMUTHY CHENNUBHOTLA, N. KALIAPERUMAL AND S. KALIMUTHU
*Regional Centre of Central Marine Fisheries Research Institute
Mandapam Camp*

Work on the culture of commercially important agarophyte *Gracilaria edulis* has already been carried out by Raju and Thomas (1971) and Uma-maheswara Rao (1974) in a sandy lagoon on the eastern side of Krusadai Island and near-shore areas around Mandapam, respectively. The present account deals with the possibilities and advantages of culture of *Gracilaria edulis* in the submerged floating condition in the inshore water of Gulf of Mannar (Mandapam).

Culture frame of 2 x 2m size fabricated with teak wood and 1" and ½" thick coir ropes was used in this study. The mesh size of the coir ropes on the culture frame was 7 cm. Fragments of *Gracilaria edulis* (about 4.5 cm long) were used as seed material and they were inserted in the twists of the coir ropes. The total material used for seeding was 1.42 kg. The frame was tied loosely to the poles fixed near the Regional Centre of Central Marine Fisheries Research Institute jetty on 26th November 1974 in a submerged floating condition so as to facilitate its going up and down vertically accordingly to the tide.

Harvest of this alga was made on 11th January 1975 after 45 days of growth. The fresh and dry weights of the material harvested were determined. The data obtained in this study are given below:

Date of planting .. 26-11-74.
Date of harvest .. 11-1-75
No. of days of growth .. 45
Weight of the plant material introduced initially .. 1.42 kg
Plant material harvested:
 fresh weight .. 7.94 kg.
 Dry weight .. 1.06 kg

Density fresh weight/m sq. . . 1.985 kg
Rate of production g/day/m sq. . . 44.0
Growth rate mm/day . . 1.44

The fresh weight obtained per square metre area was found to be 1.985 kg, which is almost in conformity with the value arrived in the experiment conducted at subtidal level by Umamaheswara Rao (1974). In the natural environment the mean growth rate of *Gracilaria edulis* was found to be 1.34 mm per day (Umamaheswara Rao 1973) whereas in the present experiment the average growth rate observed was 1.44 mm/day.

These observations show that the submerged floating condition is also suitable for the culture of *Gracilaria edulis* and a pure strain of this alga could be harvested without contamination and much sedimentation as the experiments conducted simulataneously at subtidal level revealed much sedimentation on the culture frames, which may hamper the quality and further growth of the alga.

Our thanks are due to Dr. R. V. Nair, Director, for encouragements.

RAJU, P. V. AND P. C. THOMAS. 1971. *Bot. Mar.*, 14(2): 71-75.

UMAMAHESWARA RAO, M. 1973. *Indian Jour. Fish.*, 20(1): 182-192.

UMAMAHESWARA RAO, M. 1974. *Curr. Sci.*, 43(20): 660-661.