Mass culture of spores and supply of plantlets for commercial cultivation of seaweeds (*Gracilaria edulis*) in coastal areas of Ramanathapuram District

NFDB during March, 2018 sanctioned a proposal entitled 'Mass production of spores: An approach to vigorous seed development for commercial farming of Gracilaria species in coastal areas of Ramanathapuram District' to CSIR-CSMCRI, Mandapam at a total cost of Rs.92.68 lakhs.

Under the project, technology for commercial seedling production of *Gracilaria edulis* through spores has been successfully developed for the first time in the country. 4727 Kgs biomass was produced from the spores of which 2530 kg wet biomass was supplied to 86 seaweed cultivators of Tamil Nadu and 2197 kg fresh biomass was dried and used for extraction of agar. Total biomass produced by these cultivators was 2,12,932 kg fresh biomass or 21,000 kg dry biomass.

Fig. Farmers seeding G*racilaria edulis* on rafts

Fig: Commercial seedling production of *Gracilaria* edulis spore based plantlets

Mass seedling production of *Kappaphycus alvarezii* through tissue culture technique and supply of tissue culture seedlings to the farmers of Ramanathapuram District, Tamil Nadu

NFDB funded during FY 2019-20 sanctioned a project to CSIR-CSMCRI on "Mass seedling production of *Kappaphycus alvarezii* through tissue culture technique and supply of tissue culture seedlings to the farmers of Ramanathapuram District, Tamil Nadu.

Under this project, Seedling production of *Kappaphycus alvarezii* through tissue culture technique was developed for the first time in India. It has been observed by the institute that the tissue culture seedlings were very robust, 2 to 3 times higher and not been grazed when compared to conventional seaweeds. So far under the project a tissue culture lab is established and tissue culture of seedlings is under way. Produced tissue culture seedlings are distributed to sea weed cultivators of Ramanathapuram District. The seaweed cultivators from Ramanathapuram District have produced 11.60 tonnes of fresh biomass of *Kappaphycus alvarezii* tissue cultured material so far.

Fig: Supply of tissue culture seedlings to the seaweed farmers

Fig: Kappaphycus alverezii harvested by farmers

Tissue culture lab developed under project