



Mussel culture: A low investment immense potential aquaculture

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DESCRIPTION

Mussels are among the varied invertebrates under the phylum. Their wide distribution within the coastal areas of the Indo Pacific region makes them the foremost easily gathered sea food organisms, contributing an infinite percentage to the planet marine bivalve production. Mussel culture has played greater role in meeting the increasing protein demands of the human population. Bivalves like oyster, mussel and clam are the foremost important cultivable organisms everywhere the earth. Of these, mussels like *P. viridis* and *P. indica* forms the foremost dominant cultivable species. The green mussel might be an attractive source of protein, fat and carbohydrates and a preferred source of food for local communities throughout region, including Indonesia. Because the mussel reproduces throughout the year requires no supplemental food input, grows to harvestable size in about six months and requires no mangrove removal for pond construction, it's particularly promising as a sustainable aquaculture product for culture in erosion sensitive mangrove coasts. Additionally, mussel culture doesn't require highly sophisticated techniques, knowledge or equipment, which makes it particularly suitable to be utilized in small-scale artisanal settings.

The cultivation of mussels has taken various forms in several countries of the globe. However, as altogether farming procedures, it requires careful consideration of environmental, ecological and seasonal factors, so on confirm proper growth and survival of the stock through harvest. In prospecting sites for mussel cultivation, well-protected or sheltered coves and bays are preferred than open un-protected areas. Sites full of strong wind and huge waves could damage the stock and culture materials and, therefore, must be avoided. Another important consideration is that the presence of natural mussel spatfall. Areas rich in plankton, usually greenish in color, should be selected.

Water should be clean and free from pollution. Sites near densely populated areas should not be selected so on avoid domestic pollution. additionally, the culture areas should be away from dumping activities of business wastes and agricultural pesticides and herbicides. Bottom consisting of a combination of sand and dirt has been observed to present better yields of mussel than firm ones. It also provides less effort in driving the stakes into the underside. Shifting bottoms must be avoided. Open sea and estuarine areas free from strong wave action are suitable for farming. Clear seawater with rich plankton production is true for mussel culture. Moderate water current will bring the required planktonic food and can carry off the excessive build-up of pseudofaeces and silt within the culture area. The water should have a salinity of 27-35 ppt. and temperature of 26°C to 32°C. Site should be free from domestic, industrial and sewage pollution. In open sea farming, the depth at the position should be above 5m without strong wave action, less turbulent and with high primary productivity. Compared to open sea, estuarine ecosystems with less turbulent and shallow depth (less than 4m) are suitable for mussel farming. Culture of mussels on horizontal ropes finishes up in high productivity due to the effective utilization of the primary productivity. Rack culture is ideal for estuarine conditions. In the year 2000 only 1 third of the market was supplied by national production, in spite of rapid increases; production of sea bass (8800 tonnes) and gilthead sea bream (6200 tonnes) have both doubled from 1997. Italy absorbs most of the Maltese production (600 tonnes of sea bass and 1600 tonnes of sea bream in 2000); most of this comes from stock from eastern Mediterranean hatcheries.