

OYSTER CULTURE

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Oyster culture

Oyster is an edible bivalve Mollusc

It solves the food problem of man.

Oyster are easily cultivated because of their high growth rate, sedentary habit and easy harvesting.

NEED FOR OYSTER CULTURE

- Flesh is highly nutritious and palatable.
- High content of protein.
- High content of minerals like Ca, P, Mn, I & etc.
- Rich in vitamins like vitamin A.
- Shells are used in road building.
- Shells are used for lime manufacture.
- Shells are also used in poultry feed.

DESIRABLE CHARACTER OF OYSTER

- Easily cultivable
- Growth is faster
- Attains better size & weight in short period of time
- Yield is very high

- Easy for harvesting.

CULTIVABLE SPECIES

Crassostrea	Madrasensis
Crassostrea	Disciides
Crassostrea	Gryphoides
Saccostrea	Cucullata

BIOLOGY OF OYSTERS

Oysters are bivalve molluscs. They are sedentary in habit found attached to rocks. One shell gets cemented to the substratum and the other shell acts as a lid. They live in intertidal rocky areas, muddy bays, backwaters, lagoons, creeks and estuaries.

Eggs and sperms are released into the water where fertilization occurs. The fertilized egg develops into a larva. Larvae settle on some solid objects and develop into young oysters called spat. A single oyster can produce millions of spats. The season of spat formation is called "Spat Fall Period".

ESSENTIAL CONDITION FOR CULTURE

Oyster culture requires for culture:-

- Selection of sites

- Suitable site for spat collection
- Finding out the spat fall season
- Suitable method for collection of spat
- Growing of oysters to mark-able size
- Knowing the stage of harvesting.
- Cleaning
- Marketing

SPAT COLLECTION

Spats from the seeds for oyster culture

Spat collection is an important aspect of oyster culture. Spats can be obtained from natural habitats. Spats collection is made successful by locating the spat-available places and seasons. For collection different materials are used.

They include

- Semi-cylindrical tiles
- Bamboo poles with branches
- Shells of various marine molluscs
- Plastic net

In Tamilnadu semi-cylindrical tiles are widely used. They are dipped in a mixture of sand and slacked lime

Then they are set in water. They are laid in stacks of 4 or 8 over trays on rack just 50cm below the water surface. This is done just before the known spawning period of oyster. The spat settle down in large number of tiles. Then they are allow to grow upto 25mm size. After this The spats are carefully scrapped from the tiles and are transferred to growing areas. The tiles can be cleaned recoated with lime and used for several seasons.

CULTURE METHOD:-

Oyster cultured through five methods.

They are as follows

- Raft culture
- Long line culture
- Rock culture
- Pole culture
- Bottom culture

RAFT CULTURE

Raft are rectangular wooden frames floating at the water surface. They are made to float by empty diesel drums or

tarred wooden barrels. The raft is kept in place by anchors. The oyster spats are made into strings on thin ropes. These strings of spats are suspended from the frames. The length of the strings are adjusted in such a way that they don't touch the bottom.

LONG-LINE CULTURE

It is a modified form of raft culture.

It consist of a chain of barrels under which long rope lines are tied in a parallel fastion. String of oyster are suspended from the ropes. The barrel are kept in place by anchors.

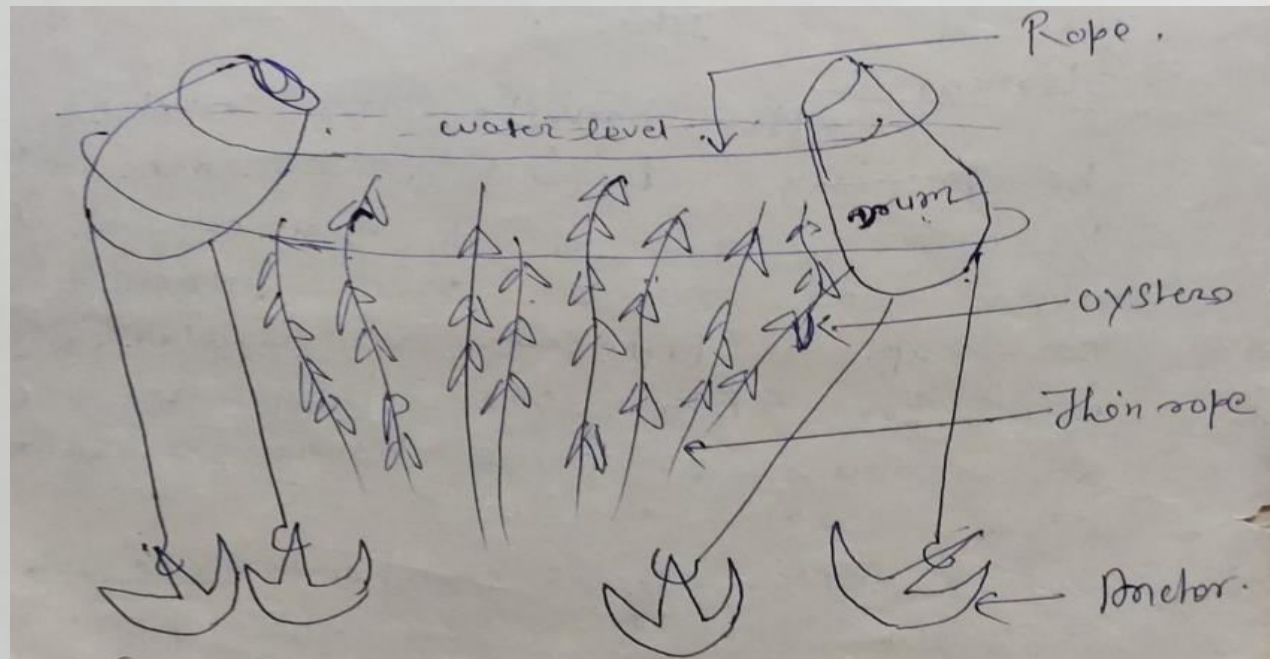
RACK CULTURE

In this method, two rows of verticle Poles are planted from the bottom. Then horizontal poles are fitted to make Racks. Oyster are culture on these racks by placing them on trays. This method is practiced in Tuti-corine.

POLE CULTURE :-

In this method, a pole is planted on the bottom. At the apex of the pole a two inches nail is placed. Strings of spats are suspended from the nail.

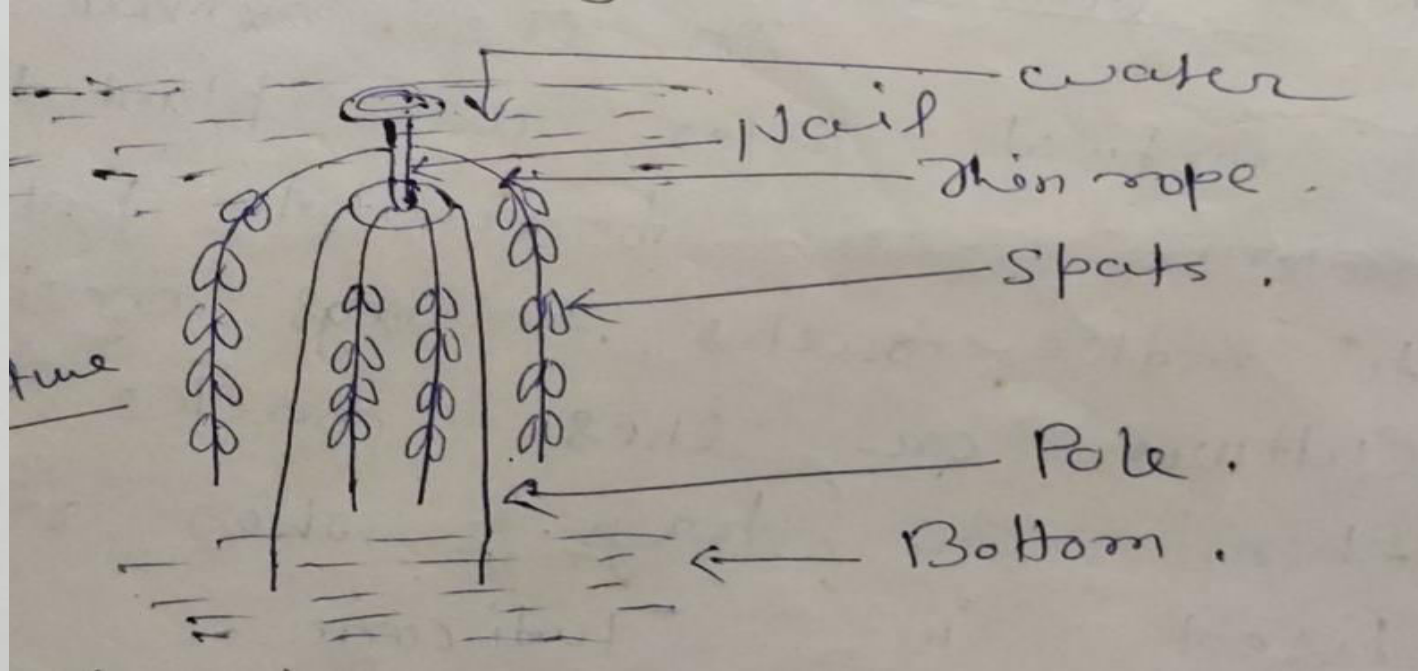
Photo



BOTTOM CULTURE METHOD

In this method empty oyster shells are spread on the bottom and spats are allowed to grow on these shells.

photo



GROWTH RATE

The average rate of growth is 8 - 12mm/month. The maximum size attained in one year is 110mm.

HARVESTING

Harvesting is done when the oyster are in plum condition and it should be done before the spawning because after spawning the meat will be very thin.

Cleaning :- After harvests, the oyster should be properly cleaned. They are cleaned by allowing a jet of sea water

directed over the osters. The cleaned Osters are kept in filtered sea water in cement tank for 40 hours. Then they are allow to remain for one hours in chlorinated sea water.

MARKETING

Oysters can be marketed with shells in alive condition or after processing or after freezing.

THANKS

