

A fisherman wearing a blue cap with 'GARSON AQUAMARINE PRODUCTS' and a blue vest is handling a large net full of groupers on a boat. He is also holding a green plastic basket containing a few more fish. The background shows the water and the boat's structure.

GROUPE CULTURE



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About grouper

Grouper (*Epinephelus* spp.) locally called *inid* or *lapulapu* is a high value fish with great potential in aquaculture. They are valued for their excellent texture and flavor. The demand for grouper in the international market is fast growing particularly in Hong Kong, Japan and Singapore.

The body color of grouper is light yellowish to brown with unequal spots scattered on the head, body and fins. From about 40 species of groupers widely distributed in tropical waters, two species (*E. coioides* and *E. malabricus*) are popularly cultured in either ponds or cages.



▲
*Epinephelus
coioides*

▼
*Epinephelus
malabricus*

Culture in net cages

CHOOSING THE SITE

Site for grouper net cage should be in areas with good water quality and adequate water exchange, no predators, and protected from strong wind and waves.

CONSTRUCTING THE CAGE

Floating cages are more popularly constructed with bamboo poles and polyethylene netting material at 25-50 mm diameter. The net cage is formed by two types of net panels; 4 side panels forming the waters of the net cage and one bottom panel. The net is secured to the raft structure (bamboo poles) by ropes. The rope system holds the bamboo together onto which the nets are attached. Buoyancy is provided by empty plastic gallons attached to the bamboo frames.



Constructing the cage



Stocking

STOCKING

Grouper fry (2.5-7.2 cm) can be stocked into the nursery net cages. Density can range from 100-150 fish per m². A net of 2x2x2 m would be able to hold 400-600 fingerlings. Sorting must be done every week and stock sampling every 15 days. Grouper should be held there until they reach about 16 cm when they are thinned out and transferred to transition nets at about 14 fish per m². A transition net 5x5x5 m can hold 1,100 fish. The fish are finally transferred to a production net after 2-3 months.



Feeding

FEEDING

Grouper juveniles are fed chopped trash fish once or twice daily at 10% of total biomass. Feeding must be done in the morning and towards the evening and at slack tides so that minimal feeds are swept away by the tidal current.



Harvesting

Culture in brackishwater ponds

PREPARING THE PONDS

Pond preparation for grouper grow-out is similar to milkfish culture. The pond depth, however, should at least be 1-2 m with a level pond bottom to allow easy harvest.

STOCKING

Stock adult tilapia (5,000-10,000/ha) in the pond and allow to reproduce for one month.

The tilapia fingerlings will serve as food for the grouper juveniles. Stock grouper fingerlings (72 cm or more) at 5,000/ha. When stocking, acclimate fry to pond conditions by gradually adding pond water to the plastic bag holding grouper fry.

FEEDING

Aside from tilapia fingerlings, give chopped trash fish every other day at 5% of total grouper biomass. Give half of the daily feed requirement in the morning and the other half in the afternoon. Place one part of the feed onto a feeding tray for monitoring purposes and broadcast the rest. Determine the biomass and daily feed requirement of the grouper stock by monthly sampling. Measure the length and weight of grouper caught by a cast net. Return the sample stock to the pond.

MONITORING

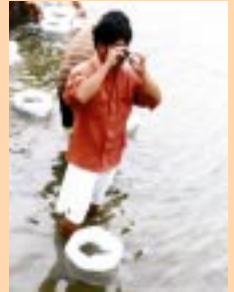
Constantly monitor the water parameters: water depth, 1.0-1.3 m; water temperature, 24-31 °C; salinity, 21-41 ppt; and dissolved oxygen, 4.9-9.3 ppm.

HARVESTING

Selective harvesting of grouper at size 400-600 g is best for grouper culture. A drag net is placed at the farthest end of the pond and dragged slowly towards the other end in the early morning. Fish are transferred to a holding net where grading is done. Undersized fish are returned to the pond.



Constructing/preparing the pond



Stocking



Hides



Feeding



Harvesting



Net cages (above) at Igang, Nueva Valencia, Guimaras, and a grouper farm (right) in Negros Occidental



SEAFDEC is currently extending technologies on grouper culture

For further information, contact:

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