

## **Farms & Farming**

### 1) How to monitor the health of shrimps during culture?

Shrimp samples will be collected once in a fortnight and the condition of the shrimp should be observed pertaining to feed in the gut, conditions of the gills, coloration of the cuticle, and presence of spots. The weight of shrimps should be monitored over the period and time to ascertain the growth rate. The undue stress to the animals can be avoided by maintaining optimal soil and water conditions.

### 2) What will be the cost of production and profit margin in shrimp farming?

With regard to *Penaeus monodon* the cost of production including interest rates for capital investment will work out to Rs 180-200/Kg. The farm gate price for *Penaeus monodon* of above 25g size will be around Rs 240-280/kg. The profit margin of Rs 60 - 80/Kg can be expected .

### 3) What are the factors to be considered while stocking shrimp seed?

Shrimp seed should be purchased from a reputed and registered hatchery which follows strict bio security protocols. The seed should be tested from the brood stock stage to test the viral pathogens using PCR test. The seed should be acclimatized to the pond water, temperature, salinity, pH before release into the ponds. Seeds should be stocked to the maximum of 10-15 /m<sup>2</sup>.

### 4) How soil and water quality can be maintained in shrimp farm?

Soil and water quality can be maintained within the optimal range by suitable pond preparation on methods to eliminate the unwanted predators, facilitating mineralization of organic waste, desalination of pond bottom and adjustment of soil and water, pH. Periodical water exchange as and when required will help in maintaining the water quality in optimal range. Use of fertilizers are also required to maintain the natural live feed in the pond.

### 5) What are the major requirements for a successful shrimp culture?

Quality soil and water, disease free healthy seed and nutritionally adequate balanced feed are the major requirements for successful shrimp culture.

### 6) What are the cultivable species in brackishwater farms ?

Shrimps like *Penaeus monodon*, *Farfantepenaeus indicus*, *Farfantepenaeus merguensis*, *Macrobrachium japonicus* can be cultivated profitably. Fin



fishes like sea bass, mullets and milk fish are suitable for culture in brackishwater farm. Mud crab like *Scylla serrata*, *Scylla tranqubarica* can also be cultured profitably in brackishwater farms.

- 7) Which factors are to be considered for the construction of brackishwater aquaculture farm and what is the cost of construction?

The factors to be considered for the designing and constructing of brackishwater aquaculture farm are

- Tidal amplitude
- Contour map
- Wind direction
- Soil quality
- Distance from source water and
- Quality of the source water

The cost of construction of brackishwater aquaculture farm with suitable dykes, supply channels, intake gate, reservoir ponds with machineries like water pump, aerators, captive power generation will require about Rs 3 lakh/ha.

- 8) What are all the permissions needed to start brackishwater aquaculture?

Presently, Coastal Aquaculture is under the regulation of Coastal Aquaculture Authority and any farm established in coastal area should be registered with the Authority.

- 9) Which area is suitable for brackishwater aquaculture?

Coastal saline soils located 200m away from high tide line can be used for brackishwater aquaculture. The tidal amplitude should be above 1 m and the area should not be prone for cyclones and floods.

- 10) What are the common dos and don'ts in shrimp culture?

| Dos                                                               | Don'ts                                             |
|-------------------------------------------------------------------|----------------------------------------------------|
| Prepare the pond properly                                         | Do not use banned antibiotics, drugs and chemicals |
| Stock disease free high quality seed                              | Do not stock with high stocking densities          |
| Use feed check trays and adjust the feeding rates.                | Don't overfeed or under feed the shrimp            |
| Use water stable, balanced, feed with adequate nutrients.         |                                                    |
| Follow strictly the bio security protocols to prevent the disease |                                                    |