

## **REQUIREMENT FOR POND CONSTRUCTION**

### **Construction of Fish Culture Pond**



#### **A) Criteria of Site Selection**

- Land should have more water holding capacity.
- Land Should not be more alkaline or acidic.
- Low lying area are more suitable.
- Site must have assured water supply.
- Outlets and Inlets of ponds should be well built.
- Site should be approachable with road or path.
- Site must be away from floods affected areas.

#### **B) Permissible parameter of soil & water**

##### **Soil :-**

- Sand (%) - 40
- Silt (%) - 20
- Clay (%) - 40
- Organic carbon (%) - 0.5-2.0
- Available Nitrogen (mg/100gm) - 20-75
- Available Phosphorous (mg/100gm) - 2 10

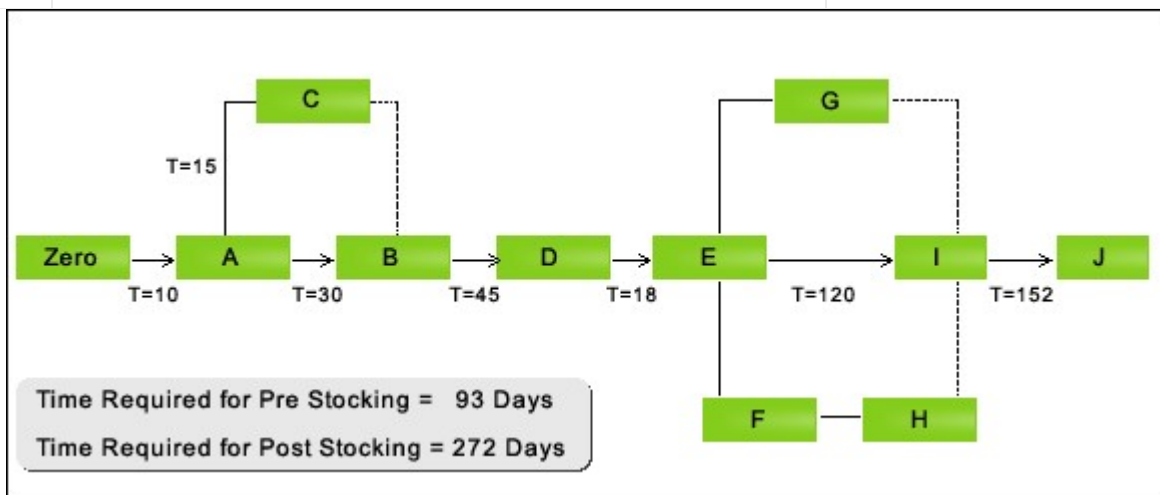
##### **Water :-**

- Colour - Light Green
- Temperature (Degree Centigrade)- 25 - 35
- Transparency(cm) - 30 - 40
- pH - 7.0 - 8.6
- Dissolve Oxygen (mg/lt) - 4 -10
- Carbon Dioxide (mg/lt) - 3 - 7
- Total Alkalinity (mg/lt) - 60 - 230
- Total Nitrogen (mg/lt) - 0.05 -1.5
- Phosphorous (mg/lt) - 0.05 -7.0
- Salinity (ppt) - <5
- Ammonia (ppm) - 0 - 0.1
- Calcium (ppm) - 75 - 150

- Chlorine (ppm) - <0.003
- Total Dissolve solids (ppm) - <80
- Potassium (ppm) - 0.5 - 10
- Iron (ppm) - 0.3 - 10

### Time Scheduling for Fish Culture in Pond (PERT/CPM)

Event	Activity	Net Duration Time (Days)
A	Identification of site	10
B	Formulation of Project (preparation of plan & estimates, Bank loans etc.)	30
C	Training in Fish Farming	15
D	Construction/Renovation of Pond	45
E	Stocking Management (Liming, Manuring, Filling of water, Growth of plankton and stocking of seed)	18
F	Soil and Water Analysis	Quarterly, After 60 days of seed in the pond.
G	Sale of Fingerlings	30 days after stocking of seed
H	Trial Netting	Every Month
I	Partial Harvesting	After 150-180 days of Stocking. (10 Jan)
J	Final Harvesting & Marketing	After 250- 260 days of stocking.



## Construction of Prawn Culture Pond



### A - Criteria of Selection of Site

- Site must be easily approachable with road or path.
- Site should be free from floods and seepage.
- Assured water supply system.
- Arrangement of outlet of water be made.

### B - Permissible Parameters for Soil & Water

#### I) Soil :-

- Texture
  1. Sand (%) - 40
  2. Silt (%) - 20
  3. Clay (%) - 40
- Colour - Blackish brown
- Moisture (%) - 35-40
- Water Retention Capacity (%) - 40
- Total Alkalinity (mg/100gm) - 0-150
- Total Hardness (mg/100gm) - 50-180
- Phosphate (mg/100gm) - 0.5-2.0
- Salinity (ppt) - <5

#### II) Water :-

- Temperature (Celsius) - 28-30
- Dissolved oxygen (mg/l) - 5-10
- Visibility (cm) - 35-40
- pH - 7.0-8.5
- Carbonate (mg/l) - 30-50
- Total Alkalinity (mg/l) - 50-180
- Total Hardness (mg/l) - 50-150
- Conductivity (mohs/cm) - 20-1500
- Salinity (ppt) - <5
- BOD (mg/l) - <30

- COD (mg/l) - <40
- Phytoplankton (nos/l) - >500
- Zooplankton (nos/l) - >500

### Time Scheduling for Prawn Culture in Pond

Event	Activity	Net Time Duration (Days)
A	Selection of site & beneficiary	30
B	Training & Study Tour	15
C	Formulation of Project & Sanction of loan from bank	30
D	Construction of Pond & Infrastructure	45
E	Nursery pond preparation & Stocking	15
F	Stocking of Seed in Grow out of Pond	45
G	Trial Netting	After 60 days of Stocking of seed
H	Soil & water analysis	quarterly
I	Water exchange	Every month after 60 Days of stocking.
J	Partial Harvesting	After 150 days of Stocking.
K	Total Harvesting	After 220-245 days of Stocking

