Farming Needs

The Aquaculture Division is here to help you in farming Tilapia (*O. mossambicus*).

For your farming need or advice on site selection, farming construction, grow-out of tilapia, pond maintenance and harvesting see us at our office @ the Ministry of Fisheries and Marine Resources or call us by

*Theme*

Sustainable Fisheries
Our livelihood
Our future

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* For a good taste choose Tilapia *
Considerable thought and planning should go into selecting sites for ponds.

1. **WATER SOURCE**
   - Site must have dependable water supply,
   - Water may come from a stream, river, spring, or reservoir, surface run-off, or brackish water,
   - Water source should not dry up in the dry season.

2. **TYPE OF SOIL**
   - Pond soil must have enough clay content to ensure that the pond will hold water,
     - Soil with clay content in the range of 20-50% clay to a depth of about one meter is best.
     - Soil that is too sandy will cause a problem: pond banks will erode easily and water will leak out.

3 **SIMPLE TEST TO SEE IF THE SOIL HAS ENOUGH CLAY CONTENT**

A. **WATER RETENTION**
   1. Dig 3-4 holes 1m deep in several parts of the proposed pond site.
   2. Fill the holes about 10-20cm deep with water.
   3. Wait about 15 minutes for the surrounding soil to get thoroughly wet, then make a mark on a stick, and drive the stick into the hole bottom until the mark matches with the water.

   4. Check each hole again after an hour or so, take the new level mark, and measure how much the water level has dropped, in millimeters. If the level has dropped by 3mm/hour or less, the soil is perfect. If the water level drop is between 3mm/hr and 5mm/hr, then the soil is satisfactory. If the water level drops by more than 5mm/hour, the soil is unsuitable.

B. **SOIL BALL TEST**
   1. Take some of the soil dug earlier from the bottom of the hole.
   2. Wet it slightly and form it into a round ball, slightly bigger than the size of a fist.

   3. Drop the ball from head height onto flat ground. If the ball retains its shape, or goes only slightly out of shape, it has enough clay content and is thus good for pond construction. If the ball flattens out, cracks, or even shatters on impact to the ground, it’s not good for pond construction.

C. **RIBBON TEST**
   1. Take some of the soil dug earlier from the bottom of the hole.
   2. Wet it slightly, and attempt to mould it into a flat ribbon of earth about 3cm wide and 6mm thick. If the moist soil forms into a ribbon of these dimensions, the soil has enough clay content. If the ribbon cracks and falls apart, the soil is too sandy and not suitable for pond construction.

3. **TOPOGRAPHY** (Lay of land or its shape)
   - Mountainous area is ruled out
   - Moderate sloping area closer to water source is best
   - Low lying area is good but requires high & large dykes (pond walls) to protect the ponds from flood waters.

4. **OTHER SITE FACTORS**

   1. **FLOOD HAZRARD**
      It is important to choose the pond site that is free from flood hazard.

   2. **WIND DIRECTION**
      Longer dimension of pond should be positioned in the same direction of the wind to avoid damage to the sides.