

Hydroponic Raft System Manual

Congratulations on buying a new hydroponic raft system. Your raft system comes with all the necessary items to get your hydroponic garden started!

Installation

Open the Raft Hydroponic system from its container and place it out.

You will have the following parts in the container.

- Raft Container
- Lid with pre-drilled holes
- Netpots
- Jiffy Plugs
- Expanded Clay pellets
- Seed packets
- Mineral Nutrients
- Air bubbler
- Silicon tubing
- Aquarium air stone.

Step 01 - Assembling the container



- Place the raft system base on a levelled floor.
- Take the lid and position it so that the marker that reads “this side inside” is facing the inside of the base.
- Attach the hinges of the lid to the slot provided on the base.

Now you have the container prepared for the next step.

Step 02 - Seed starting

Expand the jiffy plugs by soaking them in shallow tray of water. Once they expand, sow the seeds at a depth of 0.5 cm. Cover the seeds with media. The seeds should germinate in a weeks



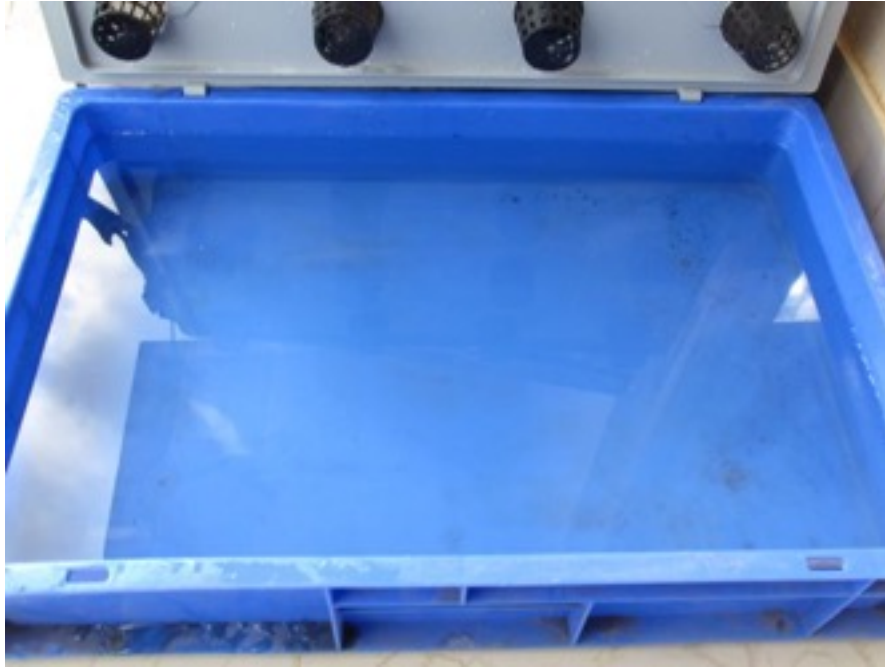
time and when they germinate, they should look like this.

Place the germinated seed plug into the net pot like below. The space between the net pots and the plug has to be filled with expanded clay provided with the packaging.



The jiffy plugs can also be inserted before the seeds are sown. That way, the roots won't get damaged while inserting.

Step 03 - Prepare the stock solution



For preparing the nutrient solution please refer to the additional document that accompanies the kit.

Step 04 - Fill up reservoir

After preparing the nutrient concentrate in step 03, prepare the nutrient solution as follows

- Take 12 litres of fresh water
- Fill up the raft system reservoir with 12 litres.
- To this, add equal quantities of stock solution A and B to achieve an EC value of 1.5 mS/cm
- If you do not have an EC meter, add 120ml of A and 120ml of B to 12 litres of water to get 1.5 mS/cm -1.8 mS/cm approximately. NOTE: This depends on the base EC of your fresh water.
- Adjust the pH of the solution within the range 5.8 to 6.3 using as acid or a base.
- Pass the aquarium air tube via a small hole provided in the lid and then attach an air stone to it so that the air stone can be submerged in the nutrient solution.

Step 05 - Transplanting

- Connect the other end of the aquarium tube to the air pump and plug in the air pump to a power outlet. Ensure there is bubbling action happening in the solution.



Take the net pots and place them in the hole provided in the raft system. There are totally 12 holes in the system. The net pot should be touching the top surface of the nutrient solution. Ta da! Its done.

Nutrients Mixing Guide

Objective

Mix your own hydroponic nutrients from the packets provided to you.

Materials

You will need the following to make your own concentrate/stock solution. This stock solution can be used to make nutrient solution of any volume.

For 100 Litres packets

- Two nos of One litre empty pet bottles.
- A rod/stick for stirring.
- Indispensable Ink Marker
- Measuring cup.

For 100 Liters of Nutrient Solution



Procedure for making a stock solution

- Take Bottle A and fill it up with 500ml of water. Use water that is pure. RO water or distilled water is recommended.
- Add the entire contents of packet A into Bottle A and shake it well. Wait until it dissolves.
- Now fill the bottle up with water so that it contains 1 litre.
- Similarly, Take Bottle B and fill it up with 500ml of water. Use water that is pure. RO water or distilled water is recommended.
- Add the entire contents of packet B into Bottle B and shake it well. Wait until it dissolves.
- Now fill the bottle up with water so that it contains 1 litre.
- Now you have two bottles A and B each of them having 100x concentrated stock solution.

How to make Nutrient solution

- To make 1 litre of nutrient solution, take 10ml of solution from bottle A and mix it into 1 litre of water
- Take 10 ml of solution B and add it too. Use the measuring cup for correct measurement.
- Now stir the solution well so that it mixes uniformly. You can use this to water the plants or to fill up the reservoir.