The Euro Grower™ from General Hydroponics utilizes modern European technology in an easy to use home system. The Euro Grower’s™ simple but elegant approach makes it ideal for a novice gardener- yet the results will excite even experienced growers. Plants rest two feet above the ground facilitating ease of use for seniors and those with disabilities.
Box #1 Contains:
(EuroGrower™ Complete & EuroGrower™
Module)
8 Bato Buckets & Drain Elbows
1 40 Gallon Reservoir
1 Reservoir Lid
1 Reservoir Lid Support
1 Mag Drive #2 Pump
1 Drain Valve
3 1 Pint Bottles of GH Flora
   Series Nutrients
1 pH Test Kit
1 Grasslin Timer
1 Drip Feed Line
2 Drain Rails
8 Drip Stakes
1 Pumpline
6 Drain Rail Clips

Box #2 Contains:
(EuroGrower™ Complete only)
4 Blocks CocoTek™ Growing Medium
1 50lb Bag of Hydroton

40 Gallon Reservoir & Lid
General Hydroponics™ FloraKit Nutrients with pH Test Kit
Bato Buckets & Drain Elbows
Hydroton Growing Media
Box #1
Drip Feed Line
Drain Rails
Grasslin Timer
Mag Drive #2 Pump
Drip Stakes
Coconut Coir
CocoTek™ Growing Media
Box #2
Step 1
Place the reservoir on a level surface where it will be used.

Step 2
Line the inside of the Lower Reservoir Grommet with a thin coating of silicon grease (optional). Insert Drain Valve into Grommet using a twisting motion.

Step 3
Attach the Drain Rail Clips by inserting them into the holes on the reservoir lid.
Step 3b

Place 3” Lid Support in center of reservoir.

Lid Support should be positioned on center rib, approximately 6-8 inches from edge of reservoir opening behind pumpline.

Step 4

Place Reservoir Lid on top of Reservoir.

Lid Support should be positioned on center rib, approximately 6-8 inches from edge of reservoir opening behind pumpline.

Proper positioning of Lid Support will prevent the Reservoir Lid from sagging.
Step 5
Position both Drain Rails on top of the Reservoir Lid.

Step 5b
Make sure the Drain Rails rest in holes in Reservoir Lid.

Step 6
Place Filter onto Mag Drive #2 Pump.
Step 7

Screw Pump Line onto Mag Drive #2 Pump.

Step 8

Place Mag Drive #2 Pump into the Reservoir through the Reservoir Access Hole located on top of the Reservoir Lid.

Step 9

Feed Pump Line and Pump Power Cable through small hole located next to the Reservoir Access Hole.
Step 10
Place the Drip Feed Line on top of the Reservoir Lid between the two Drain Rails. Screw the Drip Feed Line onto the Mag Drive #2 Pump Line.

Step 11
Place Access Lid over the Access Hole on Reservoir Lid.

Step 12
Connect two Bato Elbows to create Drain Fittings.
**Step 12b**

Insert wide end of Drain Fittings onto plastic extensions located on the bottom of the Bato Buckets.

The smaller end of the Drain Fitting fits into hole on upper edge of Bato Bucket.

**Step 13**

Place the Bato Bucket on top of the Reservoir Lid so the Bucket Drain rests in one of the holes of the Drain Rails.
**Step 14**

Make sure that Feed Lines reach into the Bato Buckets.

**Step 15**

Attach Drip Stakes to Feed Lines.

Feed Lines fit into second smallest opening on Drip Stakes.
Steps 16-24 describe Hydroton & CocoTek™ Growing Medium which is only included in Box #2 if you have chosen the EuroGrower™ Complete. (Any Hydroponic medium may be used in the Euro Grower™)

Step 16
Open bag of Hydroton and rinse it thoroughly with plain water.

Step 17
Fill each Bato Bucket up to the Drain Fittings with the rinsed Hydroton.
Set aside a similar amount of Hydroton for top mulch.
The remaining Hydroton will be mixed with CocoTek™ Growing Medium.

Step 18
Fill a 5 gallon bucket with 3 gallons of water and place 3 bricks of CocoTek™ Growing Medium into the water. Soak Growing Medium until it breaks down into a soil like substance.

Step 19
Fill the Bato Buckets with the soaked CocoTek™ mixture.
Step 20

Throughly mix Hydroton with the soaked CocoTek™ mixture.

Remember to leave some Hydroton for topping off the buckets.

Step 21

Top dress the Bato Bucket with approximately 1 inch of Hydroton.

Step 22

Prepare your seedlings or plants for transplanting by removing and rinsing any soil and / or organic material from around the roots.

It is best to choose seedlings as it is more difficult to successfully transplant older plants.
Step 23
Place the plant or seedling into the Hydroton / Cocotek™ mixture. You can, of course, begin with seeds by planting them exactly as you would in soil.

Step 24
Place the Drip Stakes into the Hydroton/CocoTek™ mixture. Point the drip end down close to the plants for accurate nutrient delivery.

Step 25
Plug Mag Drive #2 Pump Power Cable into Grasslin Timer.
Cleaning between crops

Drain the whole system, brush out the bato Buckets and, if necessary, unclog the Drip Feed Lines. Sponge off all parts using a mild disinfectant. Rinse everything thoroughly. Clean filters frequently. Simply unplug pump and remove reusable filter. Rinse filter under hot water to clean.

Hydroton

We have had many years of excellent results working with Hydroton clay pellets for plant support. We recommend that you rinse new Hydroton thoroughly to remove the fine sand which builds up from abrasion during shipping. Between crops it is good to wash the Hydroton well, removing all organic debris. An effective method is to boil or steam used Hydroton in a large pot. This sterilizes and dissolves any accumulated salts. Caution: Do Not rinse Hydroton with bleach (chlorine).

Nutrients

Nutrients are the lifeline to your plants. Since you are providing the plants with all their nutritional needs we recommend you feed them the best. General Hydroponics™ offers a wide variety of plant foods. We have had great success using our Flora series 3 part system (FloraGro™, FloraBloom™ and FloraMicro™).

1 Fill the reservoir with fresh water. If you have hard water (over 200 ppm Total Dissolved Solids or over 70 ppm calcium), we recommend that you use purified water (Reverse Osmosis and/or rain water). General Hydroponics™ has a new Hardwater FloraMicro™ nutrient formula available for growers with hard water.

2 Add nutrients as per instructions on label. Stir in FloraMicro™ first then add FloraBloom, and FloraGro. Never pre-mix nutrient concentrates. This may cause nutrient “lock-out”.

3 Adjust the nutrient solution pH between 5.5 and 6.5 (see instructions with the General Hydroponics pH Control Kit).

Notes

Nutrient mixes can be adjusted in both strength (conductivity) and “flavor” (ie: the ratios of Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur & Microelements). To adjust these factors mix different combinations of FloraGro™, FloraBloom™ and FloraMicro™ with water.

- To enhance vegetative growth, use more FloraGro™ and less FloraBloom™.
- To enhance flower growth use less FloraGro and more FloraBloom™.
- To enhance fruit production use equal amounts of FloraGro™, FloraBloom™ and FloraMicro™.
- To provide more Calcium or Iron (for green, leafy vegetables), use slightly more FloraMicro™.
- Many growers follow the 3-2-1 mix: For vegetative growth: 3 parts FloraGro (ie, teaspoons per gallon), 2 parts FloraMicro™ plus 1 part FloraBloom™. For flowering: 1 part FloraGro™ plus 2 parts FloraMicro™ plus 3 parts FloraBloom™. For fruiting: 2 parts FloraGro™ plus 2 parts FloraMicro™ plus 2 parts FloraBloom™. These units are ratios, not absolute quantities, and are only a suggested starting point. Use a conductivity meter to determine total nutrient strength.
Frequently Asked Questions.

1. How often do I add nutrient? What is “topping-off”?  
Add nutrient every time you drain your system. “Topping-off” is a term that describes adding water to the system. Remember, during hot spells plants transpire large amounts of water leaving behind nutrient salts. These salts can cause ppm levels to sky-rocket creating a toxic environment for your plants. Keep your ppm at a lower level during these times of extreme transpiration.

2. How often should the water be changed?  
That depends upon the growth (stage and rate) of your plants. When plants are seedlings every three weeks should suffice. Once the plants start to approach maturity it is best to change the nutrient mixture completely every two weeks, or even more often for better results. Between nutrient changes it is important to “top-off” the reservoir with fresh water. Add more nutrient only if the conductivity or ppm drops. Generally the conductivity (nutrient strength) should be maintained between 800 to 1,200 ppm (parts per million).

3. Should I invest in a ppm or conductivity meter?  
Yes, a conductivity meter is an essential tool for measuring nutrient strength. By knowing the ideal conductivity level for a specific variety of plant, the grower can adjust nutrient strength to meet specific crop needs.

4. How often should I run my Euro Grower™ pump?  
This depends on the plant stage, the mixture of medium and your environment. An average situation calls for 3-5 15 minute intervals per day.

5. What is the optimal temperature range for the nutrient solution?  
Optimal temperature is generally between 65º and 75º F.

6. At what pH level should my system be maintained and why?  
PH levels should be between 5.5 and 6.5 because at this pH level, nutrients are more readily available for the plant.

Ordering parts and supplies  
To order Bato Buckets, nutrients, Hydroton, or any other parts for your EuroGrower™ system, see your General Hydroponics retailer, or call General Hydroponics, Inc. for listings.

707-824-9376 Monday thru Friday, 9 am to 4:30 pm, PST.