How to Build a Hydroponic Garden

This page will show you all you need to know to build a hydroponic garden of your own, step by step, so you can grow a hydroponic garden at home.

Steps

1. Decide what you want to grow.

2. Decide how many of each plant to grow.

3. Estimate the size of the area you will need. For example, a combination of 66 cabbage & Silverbeet can be grown in 5 pipes of 4 inch (10.2 cm) round and 3 meters (9.8 ft) long by 2 meters (6.6 ft) wide. The whole unit is therefore 6 meters (19.7 ft) square.

4. Evenly mark and space 4 inch (10.2 cm) holes for the 4 inch (10.2 cm) pots to be placed in them. For the first 3-4 weeks and in hot climates, shade cloth is helpful if used under these conditions.

5. Make up a hydroponic solution of fertilizers and water (or water gel crystals) to a strength of an average of 20-24 CF with an end pH of 5.5-6.5.

6. Plant your self-raised or bought seedlings (see list of needed items) by taking seedlings out of their pots and carefully washing away most of the soil from the roots. (see tips)

7. Place the clean seedlings in the growing medium, be it perlite rockwool coir clay balls or NFT channelling and into the hydroponic solution.

8. Carefully control the chemical balance of nutrients to water (check daily) by adding mostly water, since the water will mostly evaporate.

9. Watch your plants grow for about 12 - 18 weeks. Help them by keeping pests away and watching for root-rot (when roots go slimy, turn brown and die).

10. Harvest when needed.

11. Flush the entire system after harvest, and sterilise using peroxide and copper solutions to kill bacteria and mold.

Community Q&A

How do I start seeds for use in this system?

Most growers recommend starting seeds in a hydroponic medium such as rockwool. When the seedlings are large enough, they can be transferred to the net pots.

How this garden be appropriate for an RV park?
Gravel.

2 items of importance are a digital Ph tester and CF meter, needed to check Ph and nutrient strength. Guessing is not enough.

Perlite

Consider buying a grower's guide from any of many websites by typing in "hydroponic growers guide" in the search box.

Sand.

Medium

Gently rinse (don't scrub) "seedlings" roots to remove and loosen the dirt before putting into the hydroponic solution. (Plants and roots at this stage are fragile and are not needing every speck of dirt off of them.)

Water can contain chemicals such as chlorine which can adversely affect your plants. If unsure it is best to let your tap water stand for 24 hours prior to adding to your reservoir or use chlorine remover for aquariums. By letting your water stand, you equalize the temperature of the water to that of the room, thereby making the water less likely to shock the plants' root system.

Just as with regular gardens, provide lots of natural light, like a greenhouse or sun room.

Hydroponic gardening can be done inside or outside.

Pumice

This can be an expensive hobby.

Always err on the lighter side of nutrient levels as plants will die quickly if too strong, but will cope with weaker nutrients.

Don't grow anything illegal.
**Things You'll Need**

- A well ventilated room or greenhouse, with a floor that can withstand spills.
- Electricity (because you may want to add to any natural light in the room or greenhouse.)
- A water supply. (This can be piped in or brought in by buckets.)
- Special full spectrum grow-lights
- Pump
- Home garden watering system piping
- 100–150 liter (26.4–39.6 US gal) drum to house the solution (also a support system to stand this setup on, able to bear a weight of about 200 pounds)
- Hydroponic growing chambers (such as tubs or pots)
- Growing media (perlite/water gel etc)
- Mylar for light reflection (optional)
- Fans for ventilation (if you are growing many plants)
- Hydroponics fertilizer
- A beginner would most likely want to begin with young plants (starts) rather than seed.

**Sources and Citations**

- Source for hydroponics info

**Made Recently**

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Upload a picture for other readers to see.