

Simple Outdoor Hydroponics

Grow great food, save time, money and water

What is Hydroponics?

It is the growing of plants in a nutrient-rich water bath, without the use of any soil or other support for the roots. It's inexpensive, it's easy to do, and complex scientific knowledge and equipment are **not** needed.

What is hydroponics good for in your garden?

Nearly any edible that can be grown in a soil garden can be grown cheaply and efficiently hydroponically. You can easily produce delicious tomatoes, lettuce, herbs, squash, peppers, etc., right outside your door (root veggies like potatoes and carrots are not the best choices for hydroponics). And there's no guesswork about plant feeding, as easy to use nutrients guarantee that your plants have enough of the right food available at the right time. If you are short on garden space, but have a patio, deck, walkway or balcony that can accommodate a bucket or two, you have all the room you need to grow tasty edibles hydroponically. A further bonus: hydroponic gardening eliminates digging, weeding, kneeling and heavy lifting!



What does it cost to start growing hydroponically?

If you can handle basic tools and an electric drill, and you're up for a 15-minute project, you can build a hydroponic unit like the one on display for less than \$25. If you prefer, you can buy an off-the-shelf unit for under \$50. Both types will last for years and work equally well. It's easy—give it a try!



Give it a try! Here’s a brief outline of the 5 easy steps needed to make the hydroponic growing unit on display here (refer to the display unit as you review these steps).

Tools required: electric drill with 7/8” and 5/16” drill bits. The materials shown below are available from any hydroponics supplier (retail store or online), and some hardware stores.



Start with a 5-gallon, opaque, food-safe bucket.	You need a grommet, a ½” elbow and 12” of ½ “ tubing. Drill a 7/8” hole in the side of the bucket.	Insert the grommet, then insert the elbow connector and attach the ½” tubing.	In the “net-pot lid,” drill 5 each, 5/16” holes; one for the ¼” air tubing and 4 for the legs of the tomato cage.	Connect the airstone and tubing to the air pump and turn it on.
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Just add water, hydro nutrients, a seedling and watch it grow. Enjoy your tomatoes!

To learn all about hydroponic growing, attend a **Marin Master Gardener Public Seminar**, this fall. For more info, ask us how to subscribe to our **Row By Row** publication.

Here are a few examples of the myriad of excellent outdoor hydroponic growing methods.



Bucket unit growing trellised peppers



Vertical Wall lettuce garden



2-liter soda bottle herb garden