Starting Seeds for Hydroponics

Although purchasing seedlings for your hydroponics set-up is an option, many growers prefer to start their own plants from seeds. There are lots of practical reasons — and it's fun, too!

Benefits of Starting From Seed

- 1. You're in control. You can grow healthy, pesticide-free seedlings.
- 2. You have more choice. There are thousands of varieties of seeds, compared to the relatively limited selection at the nursery.
- 3. You can coddle the seedlings. Plants that are carefully tended watered properly, fertilized, etc. adapt more quickly when moved to the hydroponic system compared to plants that have been stressed.
- 4. If you start your plants using hydroponic techniques, you won't need to worry about rinsing soil from roots (risking damage to roots) or soil-borne diseases.
- 5. You'll save money. Most seed packets contain dozens, if not hundreds, of seeds, for the price of a six-pack of seedlings.
- 6. There are few things in life more rewarding than planting a seed and then watching as it sprouts and grows!

Getting Started

Whether you're growing them for your garden or for hydroponics, you'll need to provide seeds and seedlings with their basic needs: light, water, nutrients, and a place to anchor themselves. (This article gives an overview of the basics: *Indoor Seed Starting Q&A* - link to https://kidsgardening.org/gardening-basics-indoor-seed-starting-qa/)

To start seeds hydroponically, you need to create a setup that provides for these needs:

Light. A sunny windowsill may be adequate, but you'll get better results if you place seedlings under a grow light, especially during the short days of winter.

Water. You'll probably be starting your seeds in a different setup than your actual hydroponic system, so you'll need a way to keep roots moist yet also provides them with air.

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Nutrients. You'll be using a nutrient solution in your hydroponics setup. Simply dilute the solution to half the recommended strength for seed-starting.

A place to grow. Because your seedlings' roots won't be growing in soil, you need to provide a place for them to anchor the plant and keep it upright. The step-by-step guide below shows how to plant seeds in rockwool cubes. Other non-soil options are perlite, coconut coir, and even cotton balls!

Step-by-Step Seed Starting

Rockwool cubes are convenient and readily available from hydroponics suppliers. These cubes are made from molten rock that is spun into fibers and then compressed into cubes. They're fibrous, slightly spongy, drain freely, and provide plenty of pore spaces for air and water — both vital for healthy root growth. They even have a hole in the top for the seeds. (Rockwool is pictured above, in the circular image.)

1. Start by pouring a gallon of lukewarm water into a shallow basin. Add enough nutrient concentrate to create a half-strength solution. (For example, if the packaging says to add a cup per gallon for your hydroponic system, add a half-cup.)

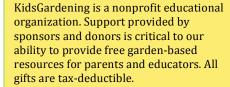


1-nutrients-into-water.jpg

2. Soak the cubes in the diluted solution for a half hour to ensure they're completely saturated.



2-soak-cubes.jpg





3. Place the cubes on a watertight tray and allow excess solution to drain. (The pictured tray has a platform that raises the cubes so they can drain freely.)



3-drain-cubes.jpg

4. Gather your seeds for planting. These are chard seeds.



4-chard-seeds.jpg

5. Plant one or two seeds in the holes in the tops of the cubes.

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5-plant-seeds.jpg

6. This seed starter has a humidity cover to hold in moisture, which will help speed germination. You can also place the cubes in a loosely tied plastic bag.



6-humidity-cover.jpg

Place the covered tray in a warm spot. Most seeds germinate best at around 75 degrees. Cool-season crops, such as lettuce, prefer cooler room temperature.

Check the tray daily. If the cubes start to dry out, mist them with the same dilute nutrient solution, or "bottom-water" by adding the solution to the tray and allowing the cubes to soak up the solution. After an hour or so, pour off excess solution so the cubes don't become waterlogged.

As soon as you see your first sprout, remove the humidity cover or plastic bag and place the tray in a sunny windowsill or under lights.

Once a seedling's roots have begun to fill out the cube, it's ready to transplant into your hydroponics system!

Additional Resources

Exploring Hydroponics Guide



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