




nutritower 

Food you can be proud of

Seed Starting

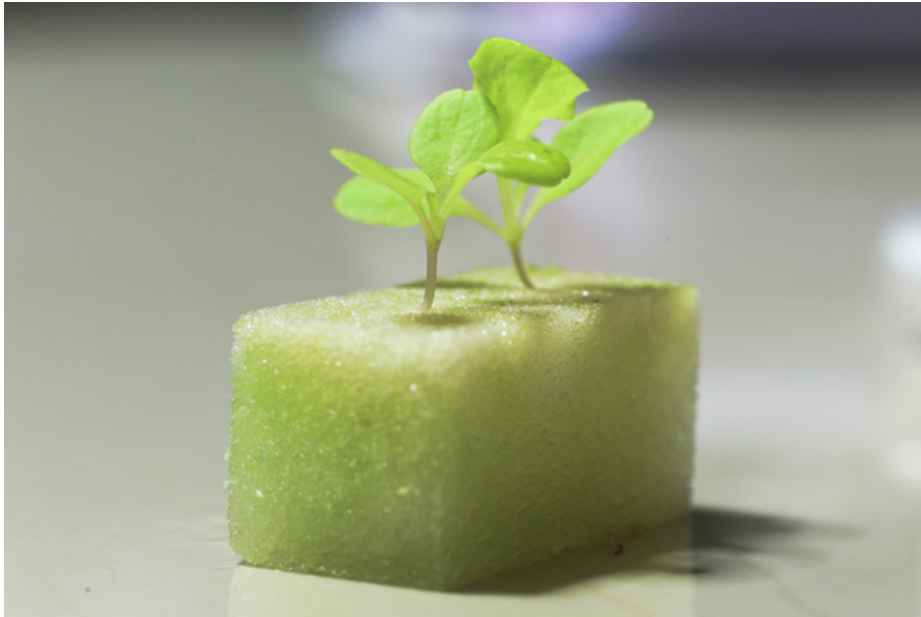
Healthy seeds and seedlings are the foundation of a flourishing Nutritower.

Starting plants from seed allows for the best experience with the Nutritower. Not only will you ensure that only the strongest, healthiest plants get transferred, but you can also experiment with many different varieties!

We've grown a wide range of things in the tower, including passion fruit vines, melons, and edible flowers! So have fun experimenting and exploring

different types of plants that adapt well to hydroponics. You may be surprised by what you can grow!

This guide is designed to help you understand the basics of seed starting for hydroponics and the Nutritower. We've simplified the process as much as possible in order to ensure success on your path to harvesting the freshest home grown food ever.



Why start from seed?

Here are our top five reasons for starting from seed:

SAVE MONEY

Starting from seed saves you money! Seeds cost a fraction of what one would pay for seedlings. Consider that the average plant started from seed will only cost you in time and maybe a couple cents for a seed and a planting medium vs seedlings that are often a couple dollars.

DIVERSITY

With all the online stores selling specialty seeds now, the possibilities are endless. Did you know that there are over ten thousand tomato cultivars out there? Half of the fun with gardening is expanding our knowledge and finding new and exiting things to grow! So why not try something like red iceberg lettuce or dragon egg cucumbers and have some fun with it!

PRESERVE BIODIVERSITY

We've all heard about GMOs (genetically modified organisms). There is a lot of information out there, both bad and good, but as a whole we prefer to promote non-GMO cultivation as it helps preserve biodiversity. The more we support our small heirloom seed

producers the better chance they have of preserving their existence.

HEALTHIER PLANTS

A big upside of starting seeds is that we can then selectively weed out the weaker plants before transferring them to the Nutritower. This helps to ensure that the plants that we grow to use for food are stronger and healthier which ultimately impacts their nutritional value, flavour, and even growth rate!

SATISFACTION

Ultimately, the best reason to start from seed is the satisfaction factor. There is no better way to beat the winter blues than planting a bunch of seeds and then watching them grow into vibrant plants. There is something special about harvesting a head of lettuce for your salad or a sprig of mint to garnish a refreshing cocktail. The sense of pride and ownership we get from this experience is rewarding in so many ways!

Most important of all is to have fun! Get out there and be playful with it :)



Step by step

Here are some simple steps to starting your seeds that will ensure their success.

STEP 1 - BEFORE YOU BEGIN

Place the germination cubes in the black tray. Since not all seeds will germinate, it is a good idea to prepare 40 cubes. The Nutritower has a capacity of 32 plants; starting with 40 seeds will most likely result in 32 good seedlings that can be transferred.

You may also choose to use other seed starting materials such as coco pellets. In any case the process is pretty much the same.



STEP 2 - PREPARATION

Pour a few cups of room temperature water over the germination cubes to moisten them. A change in color will indicate that the cubes are saturated. Make sure that there is no accumulation of water in the bottom of the black germination tray. Pour out any excess water.

Note: It is best if the pH of the water is slightly acidic. The optimum level is 6.0 while the seeds are germinating and propagating. This can be tested and adjusted by using a simple hydroponics pH kit.

STEP 3 - PLANTING

Place the seeds in the germination cubes with only one type of plant in each cube – the seeds should not be mixed. Use a small pointy object (ideally made of wood like a chop stick - do NOT use a pencil) to ensure that the seeds are sitting at the bottom of the hole in each cube

For herbs (basil, parsley, mint) put 2-3 seeds in each cube.

For fruits and veggies (cucumbers and tomatoes) put only one seed.

For lettuce and leafy greens, you can put 2 seeds. As they start to germinate, remove the seedling that looks the weaker of the two. Lettuce that is very thin (or leggy) at the base will not grow well. For the stems, the thicker the better. (See step 8) Seedlings will get leggy if they are not getting enough light.



STEP 4 - GERMINATION

Sprinkle some water over the seeds to ensure that they are moist. Place the Nano dome (clear lid) on top of the tray and place in a dark area for 48 hours to stimulate growth. It is important to keep the germination cubes in a warm area (18°C - 24°C). Place the cubes in a temperature controlled environment to keep the seeds from getting cold or use a heating mat.

STEP 5 - RECREATING SUNLIGHT

Place the light on top of the Nano dome. After plugging it in, keep the light on for 12-14 hours. Check to make sure that the vents on top of the Nano dome are closed. In order to replicate an outdoor environment with natural daylight hours, the light needs to be on for 12-14 hours every day. Direct sunlight is also good for the seedlings.



STEP 6 - WATERING

Be sure to add a bit of water to the cubes every 3-5 days to keep them wet. The cubes should not be sitting in still water. Allow for a bit of condensation to build up on the inside of the Nano dome. If the inside gets too steamy, open the vents on the top of the dome to allow some of the condensation to evaporate.

STEP 7 - PROPAGATION

While the seeds are propagating, it's a good idea to monitor them and to remove the seedlings that look weak or leggy.

Here are examples of Good (left) versus Bad (right) seedlings.



STEP 8 - HARDENING OFF

After 3 weeks, most of the seedlings will have grown approximately 1.5 inches. They will almost be ready for transplantation into the Nutritower.

Hardening off is the process of slowly acclimating young plants or seedlings to a new environment. The process is much faster for transitioning plants to an indoor system instead of outdoors - 3 to 4 days vs 10 to 14 days for outside.

On the first day, avoid watering the plants and open up the vents completely to allow more airflow into the dome. Also remove the light to reduce heat build-up.

On the second day, place the tray in a cooler area and remove the clear dome completely for 4-6 hours at a time. Keep a close eye on the seedlings - if there are any signs of wilting, replace the dome on the tray and place under the light for a few hours until any sign of wilting is gone. Repeat until the plants are able to withstand being out in the open without wilting - usually two days is sufficient for indoor plants.

STEP 9 - TRANSPLANTING

Once the seedlings have hardened off, they are ready to be transplanted in the Nutritower.



We hope that this guide will help you get your garden off to a great start!

If you have any questions along the way, reach out to us any time. We are always happy to help!

CONTACT US:

Support Team
info@nutritower.com
1-800-721-8419

[nutritower.com](https://www.nutritower.com)

