

# My Tower Garden® Seedling Growing Procedure

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Before we begin...

*Please read this entire document before you start.*

There seems to be a lot of confusion on the proper way to start seeds for use in the Tower Garden... there shouldn't be. This process is EASY and more importantly, CONSISTENT. All you have to do is follow the instructions.

First and foremost: I strongly recommend that you follow **-EXACTLY-** the "**Starting your Seeds**" section of the **Tower Garden Growing Guide** (<http://www.towergarden.com/content/dam/towergarden/resources/tower-garden-growing-guide.pdf>). It is a solid, tried & true, generalized process that works. Once you get comfortable with that process, you can optimize it for your unique growing situation. That being said, you need to understand this:

***No two people will have the exact same optimal seedling growing process.***

In other words, your process will not be optimal for me and mine will not be optimal for you. This is because no two people have the exact same growing environment (not even two neighbors both with Tower Gardens). Do not take this to mean you should ignore advice from others and work in a vacuum. I encourage you to experiment with bits and pieces of growing processes from other people. I'm sure you will find a few tidbits that improve your own process. However, **always** start with a firm, repeatable, tried & true baseline procedure (ex: The Tower Garden Growing Guide) and **only change one thing at a time** to see if it improves your results. Do **not** abandon what you know to work and "start fresh" using a completely different process (unless of course, you enjoy gambling - LOL).

A quick word about your water source:

***As with all hydroponic based growing systems like the Tower Garden, the quality and composition of your water source is extremely important - Period.***

Go back and read that last sentence again - ☺ Notice you don't see the words, "complicated", "expensive", "time consuming" in there anywhere. The Tower Garden was designed to work with a wide range of water sources... but that doesn't mean you will get the same, consistent results no matter what type of water you decide to toss in it. Knowledge is power. The more you educate yourself on the pros and cons of all your water source options, the better the chances you will have consistent, successfully results. Don't run off here and do a deep dive into water chemistry or think this is too complicated – it's not. I am simply suggesting that you read-up a little about the different types of water and pick the one you feel is best for you. If you choose not to do so, well... that is a choice too. Just know that your growing results will reflect your decision. I have prepared a basic, high-level document about water sources. It's good place to start: <https://www.facebook.com/groups/TGTech/1597284530484085/>

All that being said, I offer to you, my residential seed-to-tower process. You will see a lot of the steps from the original growing guide in there... along with some tweaks. Remember, taken end-to-end, in its entirety, it may not be optimal for you. Pick through it for the juicy morsels:

## Let's Get Started!

Your Tower Garden is designed to work with a wide variety of plants. Optimal nutrient availability for those plants is very dependent on pH level. Most seeds/seedlings/plants do best at a pH range of 5.5 to 6.0. New Rockwool has a high pH (around 8.0). This initial high pH is caused by lime forming on the fibers during the manufacturing process. You need to get your Rockwool pH into the proper range before using it. You accomplish this by pre-soaking your Rockwool cubes in pH adjusted water (in the range of 5.5 - 6.0). You can get this pH adjusted water either by taking some nutrient solution out of your Tower Garden tub or filling a bucket with fresh, clean, preferably filtered water (tap water is ok if that's all you have - de-chlorinate if possible). Ensure the pH of water is in the 5.5 - 6.0 range using your pH test kit and the pH Acid / pH Base solutions provided with your Tower Garden (use only a few drops at a time, mix, wait, re-test). Note: To make this process easier, I like to make up a batch of fresh, clean filtered, pH adjusted water in an old 5-gallon water cooler jug so I have it handy for use during these seeding / seedling grow stages. Once you have your water ready, place your Rockwool cubes in the water and set them aside for at least 30 minutes to soak (longer is OK).

While your Rockwool is soaking, take the growing tray supplied with the Tower Garden and cut the clear top cover off (if you haven't done so already). From this point on, the bottom tray will be called the grow tray and the top cover will be called the seedling tray. Place the seedling tray on the white base of your Tower Garden (or on a small table or stool as close to the Tower Garden as possible. We will be using this seedling tray a bit later on in this process.

After the Rockwool cubes have soaked for at least 30 minutes, remove them and give each cube a firm shake to remove excess moisture. Do NOT squeeze them! Doing so will damage the cube internal structure, decreasing their ability to hold air and moisture at the right ratios. I use an old salad spinner to extract the soak water from the cubes - works great. Place Rockwool cubes into the growing tray. Mark the bottom/right corner of the grow tray (and the top cover while you're at it) with a sticker or a piece of tape so you have a tray orientation reference point. Next, regardless of how many seeds the package tells you to sow, put at least 2 seeds in each Rockwool cube. My general rule of thumb is: 2 minimum and the smaller the seed, the more of each I add to each cube. Later on, you can always remove what you have too much of but can't do much if you have nothing. Sometimes seeds do not germinate. Get over it – LOL. Get a piece of paper and draw the outline of the growing tray on it. Mark the bottom/right of the drawing with a dot or X indicating the sticker/tape you placed on the growing tray. As you add seeds to the cubes, draw a square inside the tray drawing and write down what seed you placed in the cube. Now, take that bag of vermiculite you got with the Tower Garden and put it away (not needed with this process).

Once you have sowed all your seeds, fill the growing tray with 1/4 inch of fresh, filtered, pH adjusted (5.5 - 6.0) water. NO MORE THAN 1/4 INCH! Place the growing tray in a WARM \*DARK\* LOCATION \*INDOORS\*. Next, find something (other than the original tray top cover) to cover the growing tray so that your rockwool cubes are in complete darkness. A cardboard box flipped over works just fine for this. Now, LEAVE THEM ALONE UNTIL THE NEXT MORNING.

From this point on, perform the following steps only ONCE A DAY: Lift the cover off the grow tray and inspect EACH CUBE (a small flashlight is helpful here). Upon inspection, if you notice ANY sign of a seed germinating in a cube, REMOVE ONLY THAT CUBE from the growing tray and place it immediately in the seedling tray you placed on the base of your Tower Garden. Be sure to place the cube in seedling tray at the same location it was at in the grow tray. Repeat this procedure for every cube as soon as you see the very first signs of seed life. Once you have completed your inspection/removal step for the grow tray, carefully drain ALL the water from the grow tray and replace it with fresh, clean filtered, pH adjusted water. Replace the water in the grow tray EVERY DAY. Re-cover the grow tray and leave it alone until the next day.

Now, on to the seedling tray... As soon as you have Rockwool cubes in your seedling tray, fill it with 1/4 inch of fresh, filtered, pH adjusted (5.5 - 6.0) water. COMPLETELY REPLACE the seedling tray water EVERY DAY (when you do the same for the grow tray). However, EVERY OTHER DAY, replace the seedling tray water with half fresh, clean, filtered, pH adjusted water and half nutrient solution FROM YOUR TOWER GARDEN TUB (it is assumed that by now, you should have your Tower Garden setup and ready to receive seedlings). Example: Monday: 1/4 inch fresh, clean filtered, pH adjusted water. -- Tuesday: 1/8 inch fresh, clean filtered, pH adjusted water and 1/8 inch nutrient solution from your Tower Garden tub. Wednesday: 1/4 inch fresh, clean filtered, pH adjusted water. -- Thursday: 1/8 inch fresh, clean filtered, pH adjusted water and 1/8 inch nutrient solution from your Tower Garden tub... so forth and so on. As you rotate your Tower Garden 1/4 turn clockwise daily (you do this, don't you? LOL), keep the seedling tray on the DIRECT/FULL SUN SIDE OF THE Tower Garden and rotate the seedling tray 180 degrees each day. Monitor the seedlings in the seedling tray for signs of the roots starting to exit the Rockwool cubes. This typically occurs about when the seedlings are around 3 inches tall. DO NOT place a seedling into the Tower Garden until you see roots exiting the Rockwool cube.

When it comes time to finally place a seedling into the Tower Garden, you should keep track of what you place, where. People use many different methods to identify plants once in the Tower Garden. Here is mine:

Expanding on the very simple row / column diagram of my seedling tray described above, I place a number in each square of the diagram that corresponds to a rockwool cube in the tray. I create a list that consists of the following:

1. The seedling tray cube number.
2. A description of the seedling.
3. A Tower Garden port location number.
4. The date I sowed the seeds (or purchased the seedling).
5. The date I placed the seedling into the Tower Garden.

I then use a Sharpie and write a number (1 through 20/28) just above each port on the Tower Garden. I print-out the list and attach it to a clipboard. Once a seedling is ready to be placed in the Tower Garden, I note the date and the port location number on the list. The numbers on the Tower Garden never change, only on the list (if I move stuff around). Using this identification process avoids me having to stick things into the rockwool or tape things to the Tower Garden (which usually fall off after a few waterings).

Following this procedure should produce seedlings with thick, stubby stems and larger leaves. Remember, just like other procedures for the Tower Garden, this is a GENERAL, BROAD SPECTRUM procedure. It is not intended to work optimally with all types of seeds and in all types of growing environments. Expect to be fine tuning it for the particular crop you are attempting to grow.

**THE END -- HAPPY GROWING!** 😊

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