

# AT Pocket Garden Instructions



## I. Introduction

The AquaTerra Farm Pocket Garden (AT Pocket Garden) is a simple, self-contained, vertical hydroponic growing system that comes with everything needed to grow healthy and delicious lettuce – you supply water, light and electricity. This is truly living lettuce that you can harvest as it continues to grow.

There are currently two versions of the AT Pocket Garden. The standard “AT Pocket Garden” with 16 grow pockets and the “AT Pocket Garden Mini” with 8 grow pockets. The care for both gardens is the same with the only differences being weight and reservoir capacity.

Our goal is to ensure your success so contact us with any questions or issues by calling 678-653-4060 (leave a message if we don't answer) or email us at [PocketGarden@AquaTerraFarm.com](mailto:PocketGarden@AquaTerraFarm.com). We will respond within 24 hours.

### Package Contents (picture)

- Components Assemble:
  - (1) Sleeve with 16 or 8 Grow Pockets with Internal Irrigation Tube
  - (1) Reservoir
  - (1) Pump
- (10) Plant Food Packets (1 per gallon of water)
- (5) pH Test Strips
- (16) or (8) Lettuce Seedlings (in seedling cubes inside a Ziplock bag)  
*Do This Now!! After checking that all of the AT Pocket Garden contents are included, your seedlings will need air and water to remain healthy until they are placed it in your Pocket Garden (within 1 day). Place the seedling Ziplock bag on a flat surface, open the Ziplock bag and pour in enough water to cover the bottom ¼” of the cubes and leave open. Continue with setting up your AT Pocket Garden. Call us immediately with any questions or issues!*

### Instruction Sections

Read through the complete instructions before starting to ensure a full understanding. These instructions are divided into the following section:

- Setup Overview
- Placement
- Your Water
- Setting Up Your Pocket Garden
- Maintenance & Harvesting

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## II. Setup Overview

The basic steps for setup are shown below with specifics for each step can be found in sections later in the document.

### Setup Steps

- Hang Your Pocket Garden (Do NOT plug it in yet!!!) – Decide where your pocket garden where it has enough light and access to electricity.
- Test Your Water – Using the pH strips that are included, determine that your water falls within the range of 5.5 to 6.5 pH. (Read the “Your Water” section if you use city water)
- Mix Nutrient Solution – Find a gallon jug (e.g., spring water, distilled water, etc.) and place “Nutrient Solution” label on it. Empty 1 Nutrient Packet in jug and fill with water. You now have your first gallon of Nutrient Solution.
- Add Nutrient Solution to the Pocket Garden – Pour Nutrient Solution into the Pocket Garden reservoir. Make sure to put in enough to at least cover the pump (in the reservoir). Do not overfill!
- Plugin and check Flow – Touch the reservoir and you should be able to feel a slight vibration which means the pump is running. Check the flow in each grow pocket by placing a finger (palm out) into the bottom of a grow pocket, bend the finger and pinch with the other fingers until you feel water flowing. Do this in each grow pocket.
- Transplant your seedlings – Remove seedlings from Ziplock bags, gently break apart the seedling cubes and place one seedling in the bottom of each grow pocket.

### **Your Pocket Garden is Setup!!!**

*Any questions or issues please call us at 678-653-4060*

*or*

*email us at [PocketGarden@AquaTerraFarm.com](mailto:PocketGarden@AquaTerraFarm.com).*



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## **III. Placement - Where to put your AT Pocket Garden**

There four things to consider when hanging your AT Pocket Garden – weight, electricity, temperature; and light. Remember it is really easy to move your AT Pocket Garden around so it does not have to stay in one place (e.g., out on the deck unless it gets really cold or hot).

### **Weight**

The total weight of the standard AT Pocket Garden is 25 lbs. (11.3 kg) when full of water (5 qt / 4.73 L) and 16 full heads of lettuce. The weight of an AT Pocket Garden Mini is 13 lbs. (5.9 kg) when full of water (2 qt / 1.89 L) with 8 full heads of lettuce. Standard ceiling and wall hangers work very well to suspend the AT Pocket Garden (follow directions for weight and mounting) with many options available – be creative (e.g., shepherd hooks, light hangers, etc.). 10” clearance from hanging center is recommended to allow proper space for growth.

### **Temperature**

Lettuces are a cool weather crop and grow best in temperatures from 45°f – 80°f. They can handle a wider range of temperatures for short durations. We do not recommend below 40°f or above 90°f for greater than a two-hour period.

### **Light**

At least eight hours of strong light is needed. Typically, more light is better but always keep the temperature recommendations in mind. Cumulative light can work very well, 3-4 hours of direct sun with 5+ hours of ambient can produce great results.

If there is not enough light the plants will get leggy. A simple solution is LED grow lights which we have found to be relatively inexpensive and very energy efficient.

### **Electrical**

A GFCI grounded electrical plug (3-prong) is needed to constantly circulate the nutrient solution (24 hrs. x 7 days). The pump requires 15 watts / 110 volts of electricity and the power chord is at the top of the AT Pocket Garden (standard) or can be reconfigured to come out of the reservoir (call for instructions).

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## IV. Your Water

The quality and pH of the water are very important factors for success with your AT Pocket Garden.

### Water Source

The typical water sources for homes are municipal water (public utility), well water or bottled water. Here are some specifics for each source:

- Municipal Water – Typically contains chlorine which can be detrimental to plant growth. It is easy to dechlorinate by filling an open container (e.g., bowl, pitcher, etc. – more surface area the better) and placing it in a sunny, warm spot for 3 hours to burn off chlorine.
- Well Water – usually a good source of water for growing plants. There are always some minerals in well water but typically do not interfere with plant growth.
- Bottled Water – Read the Label!!! This can vary greatly but the bottling process typically includes some filtration which removes impurities that may harm plant growth and is safe to use.

### Water Treatments

- Reverse Osmosis – This is the best water treatment possible so use it if you got it!
- Home Water Filtration – There is a very wide variety of water filtration for homes. The majority of them filter out particles and some do additional filtration including minerals and other contaminants. If using municipal water, check to see if your filtration system removes chlorine. If it does there is no need to “dechlorinate” described in the “Water Source” section.
- Water Softener – Typical water softener systems use salt and is NOT good for plants. Check to see your system uses salt and if it does DO NOT USE in your AT Pocket Garden! Most softener systems have bypass spigots for plants, use this or bottled water.

### Water pH

The pH of water varies greatly no matter the source. Plants have different pH range preferences. The optimal range for lettuce is 5.5 – 6.5. Included in your AT Pocket Garden Package are pH strips to test your water. While lettuce can grow in wider pH range (5.0 – 7.0) it can affect the yield (time or amount)



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The pH test strips have four color pads and are dipped in water and then compared to a color chart to determine the pH of your water. The steps to test the water pH are:

1. Fill a small container with water (do not use running water).
2. Take one pH test strip out of packet.
3. Dip the strip into the water for 2-5 seconds getting all four color pads wet.
4. Shake the test strip to remove excess water.
5. Wait for 15 seconds for tap water or 3 minutes for filtered water.

6. Match the strip color pads to this pH color chart ⇒

Or

Go to <https://AquaTerraFarm.com/pages/phchart>

or

Text a picture to 678-653-4060

or

Email picture to [PocketGarden@AquaTerraFarm.com](mailto:PocketGarden@AquaTerraFarm.com)

7. Write down your pH: \_\_\_\_\_. If your pH is between 5.5 – 6.5, your water is ready to go.

8. If your pH is below 5.5 or above 6.5 please contact us at 678-653-4060 or

[PocketGarden@AquaTerraFarm.com](mailto:PocketGarden@AquaTerraFarm.com).



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## ***V. Setting Up Your Pocket Garden***

It is important to place your seedlings into your Pocket Garden within a day of receiving them. It is not necessary to get the final home(s) setup to get your Pocket Garden up and running, it is easy to move. We find that they are hung in many places temporarily until final location is decided or prepared (e.g., shelving, coat rack, door frame, etc.).

1. Unroll and hang the AT Pocket Garden.
2. Place hands on either side of the reservoir towards the bottom and feel for the square pump. The pump should be in the center bottom of the reservoir.
3. Add Nutrient Solution.
4. Place the pump plug into an outlet or extension cord. Touch the reservoir and you should feel a slight vibration which means the pump is running. You may also hear water running in the sleeve.
5. Place a finger (palm out) into the bottom of a grow pocket and bend the finger until you feel water flowing. This ensures that the pocket mesh opens and begins to wick properly. Repeat for each grow pocket
6. Cut open the Ziplock bag to gain easy access to the seedling cubes without damaging them. Place one seedling into each pocket making sure the seedling cube is at the bottom of the pocket next to the mesh to receive nutrient solution flow.
7. Trim the zip ties that are connecting the reservoir to the sleeve. Ensure that the sharp edges of trimmed zip ties do not come into contact with the sides of reservoir, it can cause small holes.

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## VI. Maintenance & Harvesting

### Watering

A plant food packet + 1 gallon of water makes up the **nutrient solution** to feed the plants. The amount of nutrient solution used varies based on light, temperature and plant maturity. The nutrient solution level should be kept at the top of the pump or higher and the pump should be left on 24 hours a day. The standard AT Pocket Garden (16 grow pockets) can hold 5 quarts and the AT Pocket Garden Mini (8 grow pockets) can hold 2 quarts

### Harvesting

Lettuce can be harvested by leaf or by head. Leaf harvest allows the lettuce to continue to grow and produce while a head harvest is a single harvest.

**Leaf Harvest** – cut the leaves from around the outside. Lettuce produces new leaves from the center so harvesting the outside mature leaves allows it to continue to grow and produce. Many leaves can be harvest but leave a minimum of 4 leaves so that the plant can capture light (energy) to continue to grow.

**Head Harvest** – cut the stem close to the seedling cube and take the whole head. Do not pull the seedling cube out because the roots grow through the mesh in the grow pocket. This could might affect the wicking action of the sleeve.