

modern sprout



instruction manual
2nd edition

Meet Modern Sprout

Please read instructions before using your Modern Sprout planter. Visual learner? Watch our setup video at [modsprout/setup.com](https://modsprout.com/setup.com). For more on hydroponic best practices, tips on gardening, and to participate in our growing community, visit modsprout.com.

WHAT'S INSIDE

- Top tray & 3/4 gal reservoir
- Clay pellet grow medium
- Three net pots
- Three black feeding tubes
- Three clear air tubes
- Water measuring stick
- Power adapter
- Eco-friendly air pump
- Pre-programmed timer
- Flow control valve
- Batteries & solar panel (included with solar model only)
- Seeds/plants & organic liquid nutrients NOT included

HOW IT WORKS

Modern Sprout planters use a top-feed hydroponic system to deliver water and nutrients directly to the roots of three separate plants that are potted in a clay pellet grow medium. Hydroponics offers a method of cultivation that's clean, sustainable and yields fantastic results. Plants thrive because they get fed when they need it, where they need it. When compared to soil gardening, hydroponics use an estimated 80% less water, grows plants 30% faster, and occupies 1/4 of the space.

NET POT

Don't let its size deceive you, the 3" net pots can support large root structures.

FEEDING TUBES

Transports water and nutrients from the reservoir to plant roots

AIR TUBE

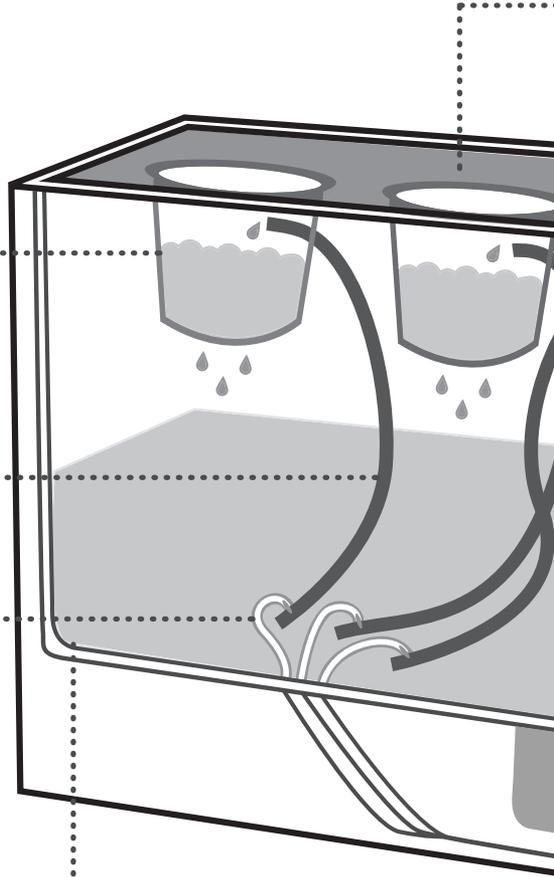
Pushes water up the feeding tubes and oxygenates the reservoir, so roots that grow into the reservoir stay healthy.

WATER RESERVOIR

Holds 3/4 gal, requiring infrequent refills. Check levels by inserting the water measuring stick through the top tray thumbhole.

TIMER & AIR PUMP ENCLOSURE

The heart of your Modern Sprout planter.



TOP TRAY

Holds net pots. Dress it up with moss or river rock.

GROW MEDIUM

Reusable clay pellets retain water, support the root system, and let roots breathe.

FLOW CONTROL VALVE

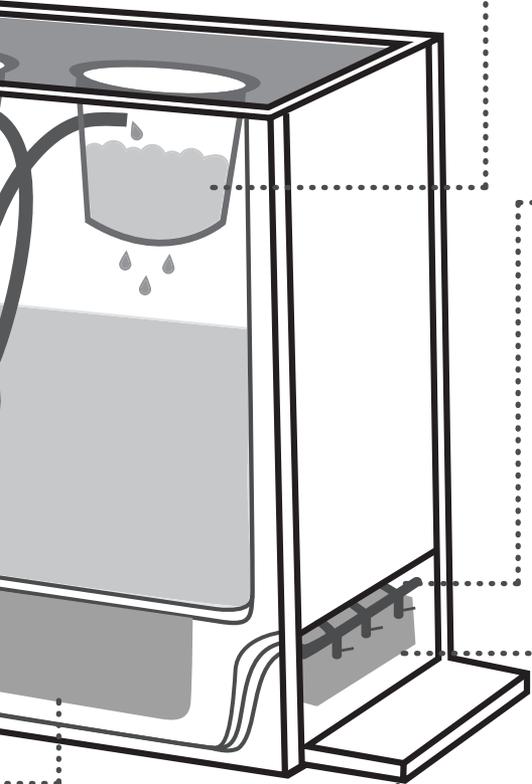
Establishes water flow to each net pot.

PRE-PROGRAMMED TIMER

Choose from 6 feeding cycles for a variety of plant types.

TIMER & VALVE ACCESS DOOR

It's magnetic. Push it and it will pop open.



This Modern Sprout planter is designed for **indoor use only**. Most plant types require direct sunlight, so place the planter in a sunny window. Plants can be started from seed, young transplants, or cuttings.

What can you grow? The possibilities are endless. Our favorites for top-feed hydroponics are:

BEGINNER

**Kale, Basil, Mint
Lettuce, Arugula & Chives**

INTERMEDIATE

warm weather (water-loving):
warm weather (dry-loving):
cool weather:

**Oregano, Parsley & Cilantro
Lavender, Rosemary & Sage
Spinach, Peas & Swiss Chard**

ADVANCED

**Cherry Tomatoes, Hot
Peppers & Cucumbers**

**Lettuce, kale, & other green
leafy vegetables**

Year-round

**Basil, mint, & other water-
loving herbs**

Year-round

**Geranium, snapdragon, trailing
vinca, & other flowers**

Fall through spring

**Cucumbers (direct sun in a
south or west-facing window)**

Late winter through fall

**Cherry tomatoes (direct sun in
a south or west-facing window)**

Late winter through fall

SETUP

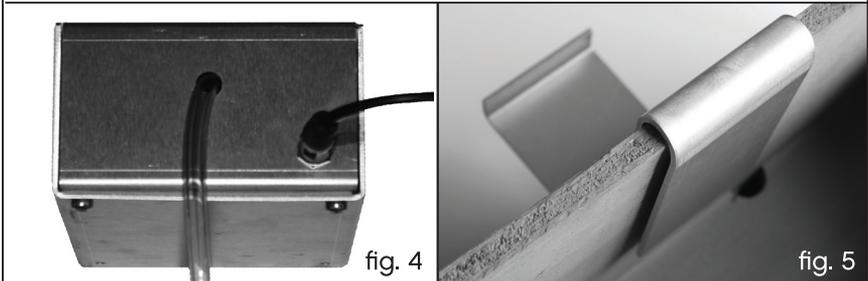
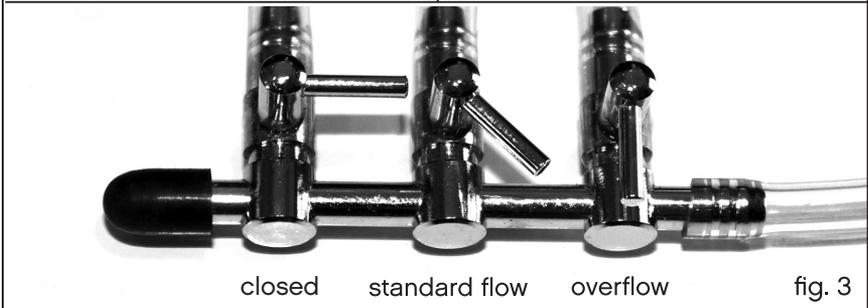
TIP! Plants need water during the day when receiving light. Start the setup process in the morning because once the timer is set the feeding cycle begins.

SOLAR MODEL: *The batteries must be fully charged before powering on the planter. To charge the batteries, use the plug-in adaptor and a wall outlet. When the light on the timer panel is red, the batteries are charging. When the light goes off, the batteries are fully charged.*

1. Remove these items from inside planter: clay pellets, power adaptor and water measuring stick.
2. Connect clear air tubes to barbed elbow on black feeding tubes (see fig. 1, pg. 6), and position joints near the bottom of the reservoir. Then confirm that clear pipe containing air tubes is clipped into the side of the reservoir.
3. Insert the opposite end of feeding tubes through the side hole on net pots (see fig. 2, pg. 6). Place top tray back on reservoir and remove tape from net pots. Pots may pop up, but will settle once filled with grow medium. Adjust as necessary.
4. Plug in power adapter or solar panel on back side of timer enclosure (see fig. 4). Mount solar panel using hanger (see fig. 5).
5. Place planter in desired location. Most plants will perform best in a south or west-facing window with direct sunlight.
6. Add 3/4 gal (2.85 L) of water (for seeds) OR nutrient solution (transplants or cuttings) into the reservoir through a net pot. Reference GROWING TIPS (pgs. 8-11) prior to completing this step for nutrient guidelines. When adding nutrients, always reference the packaging for mixing ratios.
7. Power on and adjust water flow before adding plants.
 - Plug in planter to wall outlet.
 - Open side door and set timer to “setup” (always on).
 - Levers on the door panel control water flow to each net pot. With a full reservoir and levers in closed position, adjust 1st lever to 45° until water begins to pump out, repeat with 2nd lever, and then slowly open 3rd lever until all three are pumping approximately 1 drip/second (see fig. 3, standard flow).

- If water is not flowing, confirm tubes are not kinked or locked. If you hear bubbling in reservoir, reposition hoses.
- Once water flow is achieved, turn timer to “off”.

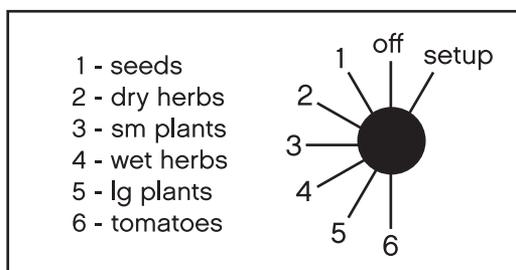
8. Rinse clay pellet grow medium several times to remove dust.
9. Add a plant, cutting, or seeds in a grow sponge to each pot (see GROWING TIPS, pgs. 8-11). Feeding tube should fall in the middle of the plant's roots or on the side of the grow sponge (see fig. 2).
10. Fill each pot with clay pellets, covering feeding tube. Starting from seed requires a slightly different setup, see GROWING TIPS (pgs. 8-11).
11. Start your planter.
 - Push open side door and set timer to desired plant type (see TIMER SETTINGS, pgs. 7-8). Confirm water is flowing to each net pot



TIMER SETTINGS

Push open the side panel to reveal six pre-programmed feeding schedules that control the pump. The settings support the most popular planter uses with standard feeding frequencies.

Due to the nature of nature, even hydroponic gardening is not one size fits all. Plant success is subject to many variables, including water, temperature, light, and humidity. With this in mind, additional watering control has been provided with the flow control valve. Adjust each lever to provide more or less water to each net pot. This enables you to grow different plants with varied water preferences, side by side.



To achieve a balance of water and oxygen, the pump will run for the first 15 seconds of every minute in all number settings.

SETTING #1: Good for seedlings and orchids. Provides two 10min feedings per day, the first when the planter is powered on, and the second 12hrs later.

SETTING #2: Good for herbs that prefer dryer conditions. Provides four 15min feedings per day, once every 2hrs, over the course of 8hrs.

SETTING #3: Good for young plants. Provides eight 20min feedings per day, once an hour, over the course of 8hrs.

SETTING #4: Good for water-loving herbs. Provides ten 30min feedings per day, once an hour, over the course of 10hrs.

SETTING #5: Good for mature plants. Provides fourteen 30min feedings per day, once an hour, over the course of 14hrs.

SETTING #6: Good for tomatoes and peppers. Provides eighteen 30min feedings per day, once an hour, over the course of 18hrs.

SETUP: This setting is “always on” and should be used for testing and to make adjustments to the flow control valve. This setting should not be used for any other purpose but for setup — roots need oxygen!

TIP! The hours of sunlight change over the course of the year, and plants may need more water, and possibly a different timer setting, as they mature. It is wise to revisit the timer and flow settings every 3-4 weeks, to keep up with the changing plants and seasons.

GROWING TIPS

TIP! Consider the adult size of the plant when deciding whether to plant one, two, or three net pots. For instance, three leafy greens, herbs, or flowers can easily fit. Bigger plants, like tomatoes, may need the planter to themselves.

TRANSPLANTING

- Transplants will be quick to grow and quick to harvest.
- Plants must have established roots prior to transplanting.
- Select young plants as older plants may be finicky. Never purchase plants that are already producing fruit.
- To prepare a plant for transplant, soak roots in lukewarm water and carefully remove soil and organic matter from around the roots. Be gentle — it’s okay if a little soil remains.
- Place in net pot and surround with clay pellets. It may take plants a few days to fully acclimate to their new container.
- In rare instances, soil may contain disease organisms or insects that will harm plants. To prevent this, shop at reputable garden centers and check plants before purchasing.

GROWING FROM SEED

- Reference the seed packaging for grow times, light needs and other growing preferences.
- Use plain water – no nutrient solution – until plants are established.

- To grow from seed, we recommend a grow sponge or rockwool grow cube (not included). Try RapidRooter grow sponges, which are 1" in diameter, and 1.75" tall. Similar products are fine.
- Soak the grow sponge in lukewarm water for 15 minutes, then add a few seeds to the center hole of the sponge. Place sponge in net pot, and fill the space around the sponge with clay pellets. The top of the grow sponge should be approximately ½" below the top of the pot (see SETUP, fig. 2).
- Align feeding tube so it directly touches the side of the grow sponge.
- Set timer to "seeds."
- Once sprouts establish a second or third set of leaves, add a single layer of clay pellets on top of the grow cube to keep light off the sponge material. This prevents algae growth.
- Thin excess seedlings by clipping at the base. Do not tug.
- For young plants (2-3"), begin using quarter strength nutrient solution. Change timer setting to #3 (sm plants) to increase feeding frequency.
- Once plants are fully established (4-5" or taller), use full strength nutrient solution and adjust timer setting according to plant type.

TIP! In dry climates or during cold times of the year, cover net pot with a clear plastic cup (not included) to ensure high temps and humidity until seeds germinate and sprouts appear, with a second set of leaves.

CUTTINGS

- You can root a new plant from a stem cut from an existing plant (with leaves, but not buds). This is called a cutting.
- We recommend rooting a cutting with rooting hormone, in a grow sponge in a glass with a small amount (less than 1/8") of plain water. Cover the glass with plastic wrap to keep humidity high.
- Transfer the grow sponge into a net pot when new roots firmly anchor the cutting to the sponge. Fill the pot with clay pellets.
- Fill reservoir with quarter-strength nutrients, and set the timer to #3 (sm plants).

FEEDING

- With hydroponics, nutrients are mixed in water. We recommend using organic liquid nutrients, such as Botanic Care Pure Blend Pro, but you can try any water soluble fertilizer. See packaging for mixing ratios.
- Use room temperature municipal tap water, bottled water, rainwater, or distilled water. Do not use softened water. Some tap water may have very low or high pH levels. The recommended pH range for hydroponic plants is 5.8 to 6.5, with 6 to 6.5 being ideal for vegetative growth. A slightly lower range, 5.8 to 6.2, is best for fruiting and flowering.
- As your plants grow they will consume water and nutrients more quickly. Measure the water level with the included measuring stick through the thumb hole in the top tray. When the water level is between 2 and 3, it's time to top off the reservoir.
- Established plants should follow the sequence FEED, WATER, FEED, WATER. This means that when the first fill of the reservoir lowers to 2-3 on the measuring stick, add plain water. The next time, add nutrient solution. Continue to alternate top-offs of water and nutrient solution. Keep a log to keep track!
- When refilling the reservoir, pour water or nutrient solution directly into net pots to flush out excess minerals from clay pellets.
- Fruit bearing and slow maturing plants like peppers tend to be more sensitive to pH levels. For best results, FEED, WATER, and then rinse the reservoir (see CLEANING, pg. 11) and replace with fresh nutrient solution (FEED).
- Plants should be fed during the daytime.

ENVIRONMENT

- Substantial light and proper temperature are crucial for fast growth, healthy plants, and high yields.
- Place planter in a well-lit window. Unobstructed south, west and east-facing windows will produce the best results. Most leafy greens want at least 4-6hrs of light, while flowering and fruiting plants want 10-12hrs.
- In winter, you may need to supplement with a grow light. Time the grow light to coincide with the feeding cycle, so plants are fed when receiving light.
- Optimal temperature is 65-75°F (18-24°C) for most plants.

GROWING ON

- The reservoir holds approximately 3/4 gal (2.85 L) of liquid. On average, this can usually sustain small plants for two or more weeks. Larger plants may require more frequent refills.
- If a plant starts to wilt, it may not be getting water. Check to make sure the roots have not blocked the feeding tube.
- It is recommended that you rinse your reservoir and completely change the water/nutrients every one to two months. To empty and clean the reservoir, pull the feeding tubes out of the net pots, then remove the top tray (with plants inside). Lift the reservoir above the wooden enclosure and gently pour remaining solution out. Wipe off the reservoir and feeding tubes with a clean towel. If the plants are too large to remove the tray, you can siphon out the reservoir using a hose (not included).

TIP! Unearth more information on www.modsprout.com

CLEANING

It is recommended that you “deep” clean your planter every time you start new plants.

1. Set timer to “off,” then unplug your planter’s power source from the back of the timer enclosure.
2. Remove top tray and disconnect black and clear tubes.
3. Remove reservoir from planter box and soak in hot water for 5 minutes. Wipe with clean cloth and let air dry.
4. To clean feeding and air tubes, remove black tubes from net pots and detach clear tubes from control valve. Remove from planter and soak in hot water for 5-10 minutes. Gently agitate tubes in water, then rinse, and wipe off exterior and blow out inside of tubes. Allow tubes to dry completely before reassembling.
5. To clean net pots and grow medium, remove from planter and rinse in very hot water. Soak grow medium overnight.

TIP! If needed, you can use mild detergent when cleaning your planter. Do not use abrasive cleaners or run through a dishwasher.

SAFETY

When using this Modern Sprout planter, basic precautions should always be followed. To reduce risk of burns, fire, electric shock, or injury to persons:

1. Always unplug the Modern Sprout planter from the electrical outlet or solar panel before cleaning or adjusting any parts.
2. To reduce the risk of electric shock, do not modify the included plug-in adaptor in any way.
3. Do not use outdoors.
4. When cleaning, do not submerge enclosure, cord, or plug in water.
5. Close supervision is necessary when the Modern Sprout planter is used by or near children or people with disabilities.
6. Keep cord away from heated surfaces.
7. Never drop or insert any object into electrical openings.
8. Use the Modern Sprout planter only for its intended use, as described in these instructions. Do not use an external timer or attachments not recommended by the manufacturer.
9. Never operate the Modern Sprout planter if it has a damaged cord or plug, if it is not working properly, if it has been dropped and damaged, or if it has been dropped in water. If any of these conditions occur, contact Modern Sprout or your local distributor for next steps.
10. Never operate the Modern Sprout planter with air openings blocked. Keep air openings free of lint, hair, and the like.
11. Use only approved and supplied parts and accessories. Use of any other kind of accessory is not recommended. Contact info@modsprout.com to order replacement parts.

MODERN SPROUT WARRANTY POLICY

Modern Sprout LLC products are covered by the following warranty policy. In no instance will Modern Sprout become liable for any loss associated with the performance or failure of any product. Modern Sprout's liability is limited to the issuing of a refund (if applicable), or replacement of the product with like kind.

LIMITED WARRANTY

Modern Sprout will repair or replace and Modern Sprout product found defective within one year of original purchase, unless otherwise stated. To exercise the warranty rights the purchaser must contact Modern Sprout at (312) 342-2114 and obtain a "Return Authorization: number, then return the merchandise with a copy of your proof of purchase (shipping pre-paid) to Modern Sprout.

See complete warranty statement online at:
<http://modsprout.com/warranty.html>