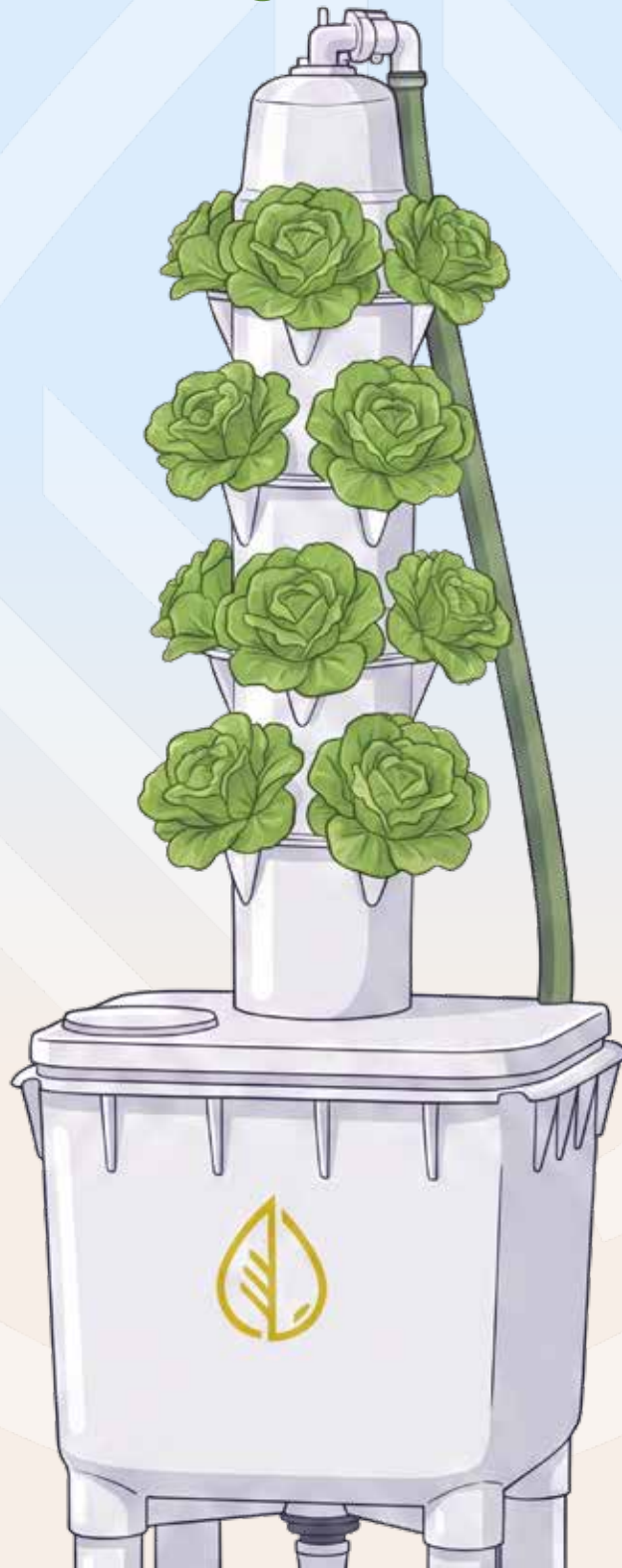


From Seed to Harvest

GROWING GUIDE

for the **Hydra Tower**



Your complete manual for simple, successful hydroponics

Beginner's Guide to Growing with the Hydra Tower



Welcome to the Hydra Tower!

This guide is designed to make growing with your Hydra Tower simple and successful. Everything the beginner needs to know, from starting seeds to harvesting, is included here.

To make things easy, the guide is divided into two main sections based on the type of plants you want to grow:



A Note on Nutrients

This guide is based on the General Hydroponics Flora Series nutrients, as they are widely used and reliable for the Hydra Tower.

These nutrients are available at hydroponic supply stores, online retailers (including Amazon), and the manufacturer's website (generalhydroponics.com). However, you can use any quality hydroponic nutrient brand you prefer — the schedules and principles in this guide will still apply.



Section 1: Growing Leafy Greens and Herbs

Use this section if you are growing lettuce, spinach, kale, basil, cilantro, mint, or most flowers. Many growers start here because these crops grow quickly and are very forgiving.



Section 2: Growing Fruiting Vegetables

Use this section if you are growing tomatoes, peppers, cucumbers, eggplants, strawberries, or zucchini (compact varieties). These crops take longer to reach harvest, but they are very rewarding once they start producing.

Section 1: Growing Leafy Greens and Herbs



Recommended crops: Butterhead lettuce 🌿 romaine 🌿 loose-leaf lettuces 🌿 spinach 🌿 kale 🌿 Swiss chard 🌿 arugula 🌿 basil 🌿 cilantro 🌿 parsley 🌿 mint 🌿 and other fast-growing greens and herbs.



Starting the Tower



Fill the reservoir with 7 gallons of fresh water. Testing and adjusting the pH is simple and important for healthy growth. Use a pH test kit or meter to check the water. Most tap water is too high or low, so you'll likely need to adjust it to the ideal range of 5.5–6.5. pH Up and pH Down solutions are easy to use – just add a small amount of pH Down if the reading is too high, or pH Up if it's too low. Stir well and re-test until you reach 5.5–6.5. It usually only takes a minute or two.

Planting Seeds



- 1 Pre-soak the sponge cones in pH adjusted water in a container until they are fully saturated which only takes a few minutes.
- 2 Place 2-3 seeds into the center hole of each sponge cone. Adding more than one seed increases your odds of a successful germination.
- 3 Fully insert the filled cones into the tower openings as flush to the edge as possible.

Timeline - What to Expect



Days 0–7 Germination & Early Sprouts

Most greens and herb seeds take 2 to 7 days to sprout and push out their first tiny seed leaves.



Days 8–21 Seedling Establishment

It takes about two weeks for the tiny sprout to develop its first “true leaves” and establish a root system that grows through the cone and into the cascading water inside the tower.



Days 22–45 Vegetative Growth & Head Formation

This is the core growth phase. The plants will rapidly gain size and volume, transforming from small seedlings into full, leafy plants.



Days 46–60+ Maturity & Harvest

Harvest time! You can either cut the entire head at the base or begin a regular “cut-and-come-again” routine to keep them producing fresh leaves for weeks.



Air Temperature 60–70° F

Cooler conditions help prevent bolting. While leafy greens can survive in warmer rooms, temperatures over 75°F often lead to bitter-tasting harvests and wilting.



Water Temperature 65–70° F

A simple aquarium thermometer makes checking easy, but you can also feel the reservoir with your hand, it should feel cool to the touch, not warm.



Humidity 50 - 70%

Use a small simple hygrometer. Good airflow from a small fan helps prevent mold and keeps plants healthy.

Section 1: Growing Leafy Greens and Herbs



Phase 1: Germination & Early Sprouts (Days 0-7)



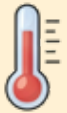
Water flow cycle: 1 minute on / 25 minutes off.



Nutrients: Use plain fresh water only — do not add any nutrients. The seeds have everything they need at this stage.



Light: Provide 16 hours of light per day (grow lights or bright window).



Temperature: Air temp 60-70°F.



Daily Tasks: Watch for roots emerging from the seeds and the first seed leaves (cotyledons) opening and turning green. Once roots appear, make sure the plants receive light.



Phase 2: Seedling Establishment (Days 8-21)



Water flow cycle: Continue 1 minute on / 25 minutes off.



Light: Continue 16 hours of light per day.



Temperature: Air temp 60-70°F..



Nutrients: Once the first true leaves appear, begin feeding on a weekly schedule. Start light with 1¾ **teaspoons (9 ml)** of each base nutrient. Always check and adjust the pH back to 5.5–6.5 after adding the nutrients.



Key Task.

Now it's time to thin the seedlings. Around Day 10–14, select the strongest seedling in each cone and remove the weaker ones using tweezers or small scissors.

Section 1: Growing Leafy Greens and Herbs



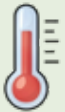
Phase 3: Vegetative Growth & Head Formation (Days 22-45)



Water flow cycle: Shift to 1 minute on / 15-20 minutes off.



Light: Continue 16 hours of light per day.



Temperature: Air temp 60-70°F during the day. (Avoid warmer temperatures).



Nutrients: Gradually increase strength weekly to **3½ teaspoons (17-18 ml)** of each nutrient.

Reservoir Management Note

Since you are not using an EC meter to monitor nutrient levels, it may be helpful to drain and refill the reservoir at some point. Drain the old solution completely, refill with 7 gallons of fresh water, adjust the pH to 5.5–6.5, and add the appropriate amount of nutrients for the current growth stage (or follow your nutrient manufacturer's feeding chart).



Phase 4: Maturity and Harvest (Days 46-60+)



Maintain the settings from Phase 3.



Harvest: Begin “cut-and-come-again” harvesting of outer leaves around Day 30–40 or cut full heads at the base when they feel firm (~45–60 days). Cut the head about 1” from the cone. Many plants will begin to grow new leaves in about 3-5 days.



Flowers

Many people grow flowers in the Hydra Tower (both edible and decorative). Most flowers follow the same care schedule as leafy greens and herbs.

Once flower buds begin to form, many growers increase blooming by adding about 1 extra teaspoon of the bloom nutrient (total ~4½ teaspoons) while reducing the grow nutrient by about 1 teaspoon (total ~2½ teaspoons).

Section 2: Growing Fruiting Vegetables



Recommended crops: Tomatoes (especially compact or cherry types) 🌿 peppers (bell or hot) 🌿 eggplant 🌿 cucumbers 🌿 strawberries 🌿 zucchini 🌿 squash 🌿 peas 🌿 tomatillos 🌿 beans



Starting the Tower



Fill the reservoir with 7 gallons of fresh water. Testing and adjusting the pH is simple and important for healthy growth. Use a pH test kit or meter to check the water. Most tap water is too high or low, so you'll likely need to adjust it to the ideal range of 5.5–6.5. pH Up and pH Down solutions are easy to use — just add a small amount of pH Down if the reading is too high, or pH Up if it's too low. Stir well and re-test until you reach 5.5–6.5. It usually only takes a minute or two.

Planting Seeds



1

Pre-soak the sponge cones in pH adjusted water in a container until they are fully saturated which only takes a few minutes.

2

Place 2-3 seeds into the center hole of each sponge cone. Adding more than one seed increases your odds of a successful germination.

3

Fully insert the filled cones into the tower openings as flush to the edge as possible

Timeline - What to Expect



Days 0–14

Germination & Early Sprouts

Fruiting seeds usually sprout and show their tiny seed leaves within the first two weeks.



Days 15–40

Seedling Establishment

Over these few weeks, the plants are working hard, developing true leaves and the robust root systems required to support heavy fruit later on.



Days 41–70

Vegetative Growth

This is the core growth phase. The plants will rapidly gain size and volume, transforming from small seedlings into full, leafy plants.



Days 71+

Flowering & Fruiting

Harvest time! You can either cut the entire head at the base or begin a regular “cut-and-come-again” routine to keep them producing fresh leaves for weeks.



Air Temperature

70–85° F

- Keep daytime temperatures around 70–85°F (21–29°C). Warmer air helps with fruit development.



Water Temperature

65–75° F

A simple aquarium thermometer makes checking easy, but you can also feel the reservoir with your hand — it should feel cool to the touch, not warm.



Humidity

40 - 60%

Aim for 40–60% during flowering and fruiting if you have a small hygrometer. Good airflow from a small fan is especially helpful as plants get larger.

Section 2: Growing Fruiting Vegetables



Phase 1: Germination & Early Sprouts (Days 0-14)



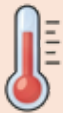
Water flow cycle: 1 minute on / 25 minutes off.



Nutrients: Use plain fresh water only — do not add any nutrients. The seeds have everything they need at this stage.



Light: Provide 16 hours of light per day (grow lights or bright window).



Temperature: Air temp 70-85°F.



Daily Tasks: Watch for roots emerging from the seeds and the first seed leaves (cotyledons) opening and turning green. Once roots appear, make sure the plants receive light.



Phase 2: Seedling Establishment (Days 15-40)



Water flow cycle: Continue 1 minute on / 25 minutes off.



Light: Continue 16 hours of light per day.



Temperature: Air temp 70-85°F.



Nutrients: Once the first true leaves appear, begin feeding on a weekly schedule. Start light with 1¾ **teaspoons (9 ml)** of each base nutrient. Always check and adjust the pH back to 5.5–6.5 after adding the nutrients.



Key Task.

Now it's time to thin the seedlings. Around Day 15-20, select the strongest seedling in each cone and remove the weaker ones using tweezers or small scissors.

Section 2: Growing Fruiting Vegetables



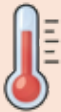
Phase 3: Vegetative Growth (Days 41-70)



Water flow cycle: Shift to 1 minute on / 15-20 minutes off.



Light: Continue 16 hours of light per day.



Temperature: Air temp 70-85°F



Nutrients: Gradually increase strength weekly until you reach 7 to 10 teaspoons (35–50 ml) of each base nutrient.

Reservoir Management Note

Since you are not using an EC meter to monitor nutrient levels, perform a full reservoir change every 2–3 weeks. Drain the old solution completely, refill with 7 gallons of fresh water, adjust the pH to 5.5–6.5, and add the appropriate amount of nutrients for the current growth stage (or follow your nutrient manufacturer's feeding chart).



Phase 4: Flowering & Fruiting (Days 71 onward)



Environment: Maintain the water flow, light, and temperature settings from Phase 3



Nutrients: It is time to shift your nutrient ratio to encourage blooming! When refilling your 7-gallon reservoir, stop using equal parts. Instead, use 5 teaspoons (25 ml) of Gro, 10 teaspoons (50 ml) of Micro, and 15 teaspoons (75 ml) of Bloom.



Additional Care: Provide trellises, cages, or ties. Prune tomato suckers. Gently shake plants daily or use a small fan for pollination. Support heavy fruits.



Harvest!

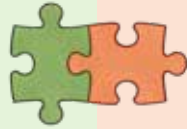
Pick ripe fruit regularly. Many plants will continue producing for weeks or months.

Tips for Fruiting Vegetables

These crops are more sensitive to temperature swings and nutrient imbalances.

For blossom end rot prevention, add calcium + magnesium supplement.

Pro Tips & Troubleshooting



Mixing Crops on One Tower

Group plants with similar temperature and nutrient needs together.
Avoid combining cool-loving leafy greens with heat-loving fruiting vegetables in the same tower.



Troubleshooting



Algae in the reservoir:
Cover it from light.



Damping-off in seedlings:
Improve airflow.



Nutrient burn (brown leaf tips):
Make the nutrient mix a bit weaker.



Bolting in greens:
Keep temperatures cooler.



Pests:
Inspect regularly and use approved organic controls if needed.



Always follow the feeding charts provided by your nutrient manufacturer for exact mixing amounts based on your growth stage. Start weak and increase slowly while observing your plants.



Experiment with your water flow timer based on how your plants respond.



Use a reliable pH meter and adjust as needed.

Happy Growing with your Hydra Tower!