



HYDRO Pickers™

More food in less time.

Tips for a successful ... HYDROPICKER™ GARDEN

- Hydroponic raised-bed gardening systems are most successful when the pH of the water is tested regularly with the enclosed test kit. The chart of individual plant pH ranges on the back page will help you determine the correct range for your plants. If you are growing more than one plant type, refer to this chart to choose plants within the same pH range.
- Never let the water reservoir run dry. Allowing the system to run dry stops plants from taking in nutrients.
- Add water (always through the fill tube) every couple of days when plants are small/young. Increase to daily watering as the plants mature.
- Always maintain the reservoir water levels according to the directions below.
- Do not overcrowd the planter.
- Warm-season crops like tomatoes should be positioned to get six to eight hours of sunlight daily.
- Cool-season plants such as leafy lettuce and spinach prefer partial shade.
- Tall plants and vines may require supports as they grow. Thin stakes can be added by inserting into small holes in the bottom of the mesh baskets and supported on the sides of the baskets with twist ties. External small cages (such as EG's CropProps™) are available and can be built around your HydroPicker.

PLANT SELECTION

Choose your favorites or try something new. Seedlings available at your local garden center or nursery will grow in your HydroPicker Grow Box. You can use the small or large seedlings. Average seedlings are 5-7" tall and in 2" wide pots.

You can also plant your HydroPicker with seeds. We recommend you choose plants that are normally easy to grow from seed – cucumbers, squash and beans. Do not overcrowd the box.

Whether planting seedlings or seeds, you may want to contact your local County Cooperative Extension Agency for suggestions.

AVERAGE SEEDLING QUANTITIES

Actual amounts may vary based on plant varieties. Check with your hydroponics supply store if you need assistance choosing type and quantity of plants

FLOWERS 10-12
for most flowers

VEGETABLES

Beans, bush – 10
Beans, pole – 10
Beets – 10
Broccoli – 8
Brussels Sprouts – 8
Cabbage – 8

Cucumbers – 5/6
Cauliflower – 8
Celery – 8
Eggplant – 2/3
Garlic – 20
Herbs – 8
Leeks – 10
Lettuce – 10
Melons – 5

Okra – 10
Peas – 20
Peppers – 8
Radishes – 20
Spinach – 12/14
Squash – 5/6
Strawberries – 8
Tomatoes – 2/3
Turnips – 10

INCLUDED

Grow Box
Casters
Fill Tube
Top Deck
Support Tubes for Top Deck
Resin Mesh Pots (5)
Grow Media (Coconut Coir)
Nutrient Kit
pH Test Kit

YOU WILL NEED

Seeds or seedlings
Scissors or utility knife
5 gal. water for rehydrating coconut coir
2-3 gal. water for Grow Box



STEP 1 – Plan ahead

Determine what type and how many plants you need. Remove all the HydroPicker parts from the tray. Gather and organize materials.

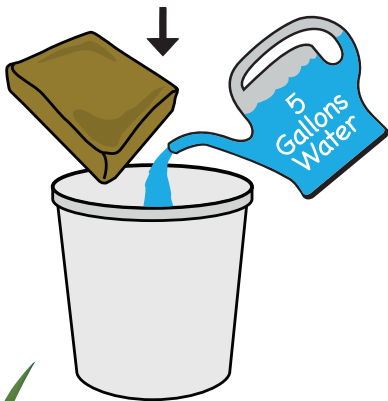
- Your HydroPicker Grow Box
- 1.5 cubic foot coconut coir
- 5 gallons water to expand compressed coconut coir grow media

Note: To prepare coconut coir grow media, open package and place block in 4-5 gallon bucket then fill with water. The media will expand to 3 gallons. Soak four hours or, for a more complete water absorption, soak overnight. Media will expand to fill bucket.

- Approximately 7.5 gallons for the HydroPicker Grow Box
- A sharp knife or scissors
- Seeds or seedlings

Choose a location

Select a sunny spot with a minimum of 8 hours of daily sunshine for warm-season crops such as tomatoes, peppers, eggplant. Select partial shade for cool season crops such as lettuce, spinach, or arugula.



STEP 2 – Assemble and position your new HydroPicker

A. Snap casters in the feet of the Grow Box and set the box in desired location making sure the surface is level.

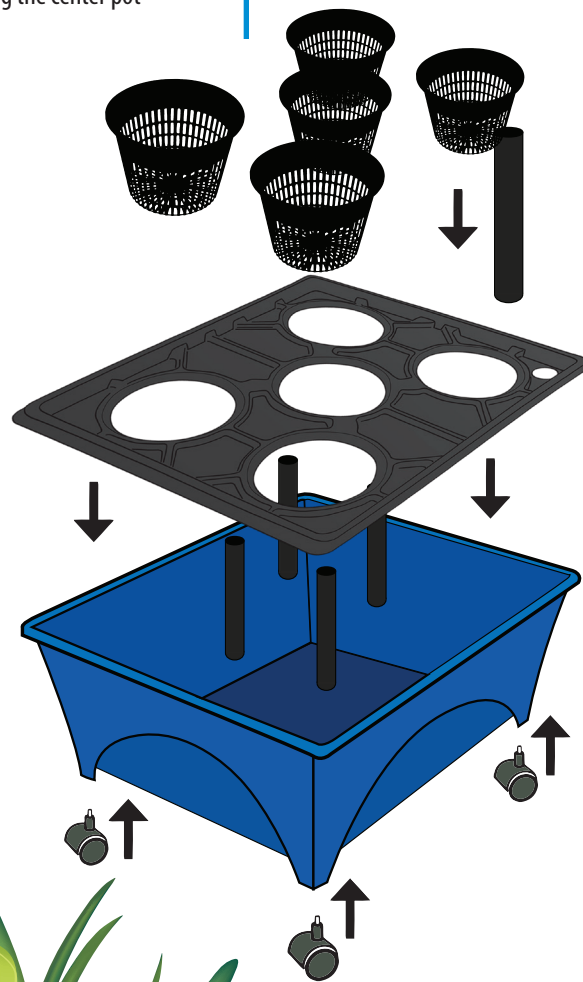
B. Place the four support tubes on the four posts surrounding the center post in the bottom of the Grow Box. These will then line up with the four indented areas surrounding the center pot opening in the Top Deck.

C. Snap Top Deck over Grow Box making sure the four support tubes are aligned with the four indented areas surrounding the center pot opening.

D. Insert fill tube into corner opening in the top.

E. Fill with clean water to top of curved indents on sides (30qt/7.5 gallon) For the initial fill, add 2 tablespoons of the nutrient mixture, stirring until completely dissolved.

F. Insert filled mesh baskets in ALL openings of deck top, even when not planting all 5 units.



No Soil means No Fuss, No Muss.

STEP 3 – Prepare the Nutrient Solution

A. Preparing the Nutrient Solution – Add one teaspoon of the nutrient mix to each gallon of water used. After the nutrients are dissolved, check the pH level of the solution as water pH can vary by region or municipality. Always add the nutrients to the water before checking and adjusting the pH of your solution. The fertilizer will usually lower the pH of the water due to its chemical makeup. After adding nutrient and mixing the solution, check the pH using the enclosed pH Test Kit.

B. Adjusting the pH – There are several chemicals used by the hobby gardener to adjust pH. The most popular are phosphoric acid (to lower pH) and potassium hydroxide (to raise pH). Both of these chemicals are relatively safe, although they can cause burns and should never come in contact with the eyes. Most hydroponic supply stores sell pH adjusters. Check with the supplier for correct use of the pH adjusters.

For more information, check with:

- Your local Cooperative Extension Agency
- These websites:
<http://www.greenhousegrower.com/uncategorized/manage-ph-and-soluble-salts-in-hydroponics/>
<http://www.simplyhydro.com/ph.htm>
<http://aggie-horticulture.tamu.edu/greenhouse/hydroponics/solutions.html>

C. Use pH Test Kit to check pH of final mixture.

STEP 4 – Determine number of pots to plant by type of plant. You may use fewer pots for larger plants – such as three diagonal for tomatoes or one in each corner for beans. Leafy plants and lettuces can use all five pots.

NOTE: *Even though you may be planting fewer pots than the top deck accommodates, you need to have pots in ALL the openings. It is necessary for ALL to be filled with coconut coir grow media and placed into the top deck in order to ensure proper functioning of your HydroPicker as a sealed system.*

STEP 5 – Finish the preparation of the moistened coconut coir grow media by stirring and crumbling it in the bucket until loose.

STEP 6 – Planting

For seedlings and starter plants fill bottom 1-1/2" to 2" of pot with grow media. Set plant onto media and gently support with one hand. Use other hand to loosely fill grow media around plant to 1" from top of pot.

For seeds fill pot to 3" to 3-1/2" with grow media. Place seeds in pot according to plant type (1-3 seeds). Continue filling with media to 1" from top.

Fill any remaining empty pots with grow media to within 1" from top, making sure open "net" area is covered.

NOTE: *You need to have pots with coconut coir grow media in all five openings. This ensures your HydroPicker is a sealed system – keeping the water from evaporating too quickly.*

STEP 7 – Water regularly

Use the fill tube to fill reservoir and maintain water level.

For leafy plants and greens (leaf lettuce, romaine, head lettuce, cilantro, etc.), system should remain sealed for complete grow season. Plants of this type will use 1.5 to 2 gallons of water per season. By design, an open 'moist vapor' area will form between the nutrient solution and the bottoms of the pots as the plants absorb the liquid. This is an important part of the process. Do not fill this moist vapor area with water or the specialized "oxygen" roots that form will drown. If too much liquid evaporates or is used up by plants, water should be added to maintain at least 2-1/2" (6.4cm) depth.

For stem and vine plants (beans, tomatoes, peppers, strawberries, etc.), plants will use more water. Once water roots have formed and a 2" vapor area develops, nutrient solution should be maintained at 2-1/2" depth by adding additional water. Test solution pH weekly and add nutrients as needed.

OPTIMAL PH LEVELS FOR PLANT TYPES

Beans	6.0-6.5	Lettuce	6.0-6.5
Broccoli	6.0-6.5	Peas	6.0-6.8
Cabbage	6.5-7.5	Pineapple	5.0-5.5
Cantaloupe	6.5-6.8	Pumpkin	5.0-6.5
Chives	6.0-6.5	Radish	6.0-7.0
Cucumbers	5.8-6.0	Strawberries	5.5-6.5
Garlic	6.0-6.5	Tomatoes	5.5-6.5



Contact eginfo@emscogroup.com with questions or comments.

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INSTRUCTIONS AND PLANTING GUIDE

HYDROPONIC RAISED-BED GARDENING SYSTEM



INCLUDED:



Grow Box



Casters



Top Deck



Resin Mesh Pots (5)



Grow Media



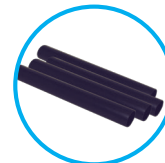
Nutrient Mix



pH Test Kit



Water Fill Tube



Support Tubes

You will need:

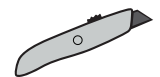
Seeds or Seedlings



Scissors or Utility Knife



Rehydrating Coconut Coir



For Grow Box



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The resin used in these products is a food safe High Density Polyethylene. It is chemically inactive, BPA free and Phthalate free. (Very Food Safe). For long range, the plastic is colorized with UV additives (also chemically inert) to prevent long term degradation in direct sunlight.