

## How to Do Gardening With Hydroponics

Wouldn't it be great to enjoy ripe, delicious, just-picked tomatoes in the middle of February? Or create a gourmet salad from vegetables you've just harvested, while a winter storm rages outside? Gardening with hydroponics lets you enjoy homegrown produce all year round.

Gardening with hydroponics, also known as "soil-less gardening", is a fairly recent development in agriculture. The initial process of hydroponics was developed as a solution for people who wished to garden in small spaces, like condo units and apartments.

Dan Lubkeman, president of the Hydroponics Society of America says, "Hydroponics is soil-less gardening. It means more food in less space with less water in less time." Since 1979, the Hydroponics Society of America has been serving hobbyists and commercial growers from 23 countries across five continents. "It's like playing Mother Nature indoors", continues Mr. Lubkeman, "You provide the sun, food, water, and fresh water."

You can sometimes tell that you're eating a product of hydroponics as soon as you take your first bite. The crunch of a carrot, the moistness of lettuce and the meatiness of a beefsteak tomato, all enhanced by gardening with hydroponics. There is a cleaner, fresher overall quality and flavor that produces an effect on the palate like delectable, edible fireworks.

Gardening with hydroponics can produce virtually any plant and produce. If you can grow it in a traditional soil garden, you'll be able to grow it with a hydroponics system. Aside from saving space and soil, this method also has several other benefits. There are no soil-borne diseases, there are no weeds to pull and there is no soil to till. These benefits alone are enough to persuade any gardener to give up the soil and get gardening with hydroponics.

Neil Watson of General Hydroponics, which manufactures and sells hydroponics products in Sebastopol California, has another benefit to add to the list: "Also, the plants can be grown close together, which means it's easy to grow salad makings in your kitchen." This is exciting news for those who live in condominiums or in residences with little yard space. Even apartment-dwellers can grow tomatoes, peppers, and strawberries right in their own homes.

Many gardeners are hesitant to try gardening with hydroponics, thinking that's it a complicated method. There are, in fact, several different methods of hydroponics gardening, but each one is relatively simple to perform.

Some hydroponics methods do away with soil entirely. Others use a little extra material as a means of giving the plants physical support. Whichever method you choose, you should be prepared for more than a little trial and error before you become a true hydroponics master gardener.

A good first step is to gain an understanding of some common hydroponics terms:

\* **Passive Hydroponics:** Considered by many as the simplest approach, passive hydroponics requires the least amount of maintenance. As the grower, all you need is a container filled with a medium, which is then placed into a tray of nutrient solution. This solution will need to be replaced occasionally.

\* **Flood and Drain:** Also known as "ebb and flow" hydroponics. Pots holding planting medium are placed into a tray above a reservoir of nutrient solution. The nutrients in the tray are replenished with a pump set on a timer. This keeps the pot filled regularly with fresh food and air. General Hydroponics spokesperson Neil Watson claims, "This might be the most popular, most practical and cleanest method available."

\* **Deep Water Culture:** This method of gardening with hydroponics involves the suspension of plants from above, with the roots hanging into an aerated nutrient solution. Standard aquarium pumps and air stones are usually used to create bubbles and aid in aeration. It's essential to have proper aeration, as this delivers oxygen to the plant roots.

\* **Algae Formation:** The enemy of hydroponics gardeners. Algae will kill your plants and ruin your hard work and investment. Choosing a plant container that is lightproof will help prevent algae formation.

Whether you're living in close quarters with limited space, or simply hungry for a fresh, juicy tomato in the dead of winter, gardening with hydroponics can be a great option. Find out more at your local garden center.