



## *.... Plant Strong Families and Communities ....*

### **Growing Indoors with Your VERY OWN Hydroponic System**

Ever since humans largely switched from nomadic lifestyles to more stationary, agrarian ones, they have experimented with new ways of growing food. One of the biggest advancements in agriculture was the discovery that plants don't actually need soil to grow. In fact, growing can be made possible through the use of hydroponic systems. With hydroponics, plants get all the nutrients they need without having their roots encased in dirt.

Hydroponics involves growing plants via a special nutrient containing water delivery system and not utilizing soil. Hydroponics places importance on specific water, sun, and nutrient levels to efficiently grow plants in a designed system. Often times, a hydroponic system may simply be a product that is a self-contained system with tubing to contain the nutrients, similar to a portable terrarium.

Hydroponics is great for growing small plants indoors, like herbs and microgreens. Basil, thyme, and rosemary are typically chosen to grow in a hydroponic system. Similar plants like lettuce and kale may be great choices, as well! [2] Furthermore, when plants are grown indoors, you have the opportunity to closely examine the plants and growth patterns.

Some of the best kitchen hydroponic setups offer the opportunity to grow 6 small plants near a medium or large window. Although not necessary in all systems, a material for the plant to grow in may be used, such as vermiculite, coconut coir, gravel, or perlite. [3] Nutrient materials that are provided along with the water are either synthetic or organic. When organic nutrient materials are used, the system should be applicable to this, so it may flow freely to provide the nutrients. Commonly, a mineral and water solution is delivered to the plants. There are a variety of hydroponic systems, classified by how their vines are treated, including static solution, continuously flowing, or misted. The system in which a mist of the nutrient solution is applied to the roots is also called aeroponics.

In summary, hydroponics is the cultivation of plants without using soil. Hydroponic flowers, herbs, and vegetables are planted in inert growing media and supplied with nutrient-rich solutions, oxygen, and water. This system fosters rapid growth, stronger yields, and superior quality.

1. <https://en.wikipedia.org/wiki/Hydroponics>
2. <https://www.thespruce.com/beginners-guide-to-hydroponics-1939215>
3. <https://hydrobuilder.com/learn/hydroponics-101/>