

By: **Tim Carpenter**

There are over 80 million gardeners in the U. S and the number is growing daily. I would like to take a few minutes to dispel the belief that hydroponics is only for those who have a degree in chemistry and horticulture. Hydroponics is absolutely the easiest way to grow almost anything.

Think about it. The soil in your garden contains a lot of chemicals, but not necessarily those needed by the plants you wish to grow. Also, these chemicals are almost always out balance; too much nitrogen, not enough iron, the wrong Ph or no organic matter for holding water and nutrients. How do you know if those chemicals in your soil are safe? There are more harmful chemicals in your garden soil than in the hydroponic fertilizer solutions we make at **Verti-Gro**. There are no petrochemicals in our fertilizer solution. Yet it is a complete formula containing all the essential plant food and in the exact proportions needed by most plants.

There is also the misconception that you need all these big tanks, pumps, heavy gravel, etc... This is not true with the hydroponic system we have at **Verti-Gro**. The lightweight insulated high-density Styrofoam pots changes the way we do hydroponic and organic growing. You can do hydroponics two ways. Re-circulating (or re-cycling) the water and nutrients is the standard method. The water and nutrients are reused until they are out of balance, then they are dumped and the process is repeated. This is the part that most gardeners don't understand and eventually make costly mistakes by trying to use the same fertilizer solution too long.

At **Verti-Gro** we recycle the water and nutrients for a set period of time then apply the “*used*” solution on other plants not grown hydroponically. For example, this system reuses the solution for two weeks before it is replaced. About five gallons is used on other plants every two weeks. This is a very small amount of water and nutrients to dispose of. If you feed this solution to other plants you will find that it may increase their growth and reduce some diseases.

The other way to do hydroponics is by drip irrigation into a soilless mix. There is no re-circulation so the fertilizers do not get out of balance and there are no constant adjustments. This is called the “**one pass**” system or simple “**drip irrigation**”.

Let's look at the basic ingredients of a hydroponic system then it will become clearer. You need a “**soilless**” growing mix, a complete soluble formula, a nutrient tank and a pot to hold the plants. That's it for a simple manual system. To automate the system add a simple timer and pump, some drip tubing and you are ready to garden the easy and practical way. It's not only practical but economical as well.

Vertical Gardening