

Hydroponics: The Time is NOW!

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Hydroponics is gardening of the future. There are over seven billion people on this earth, and that number is expected to grow to over 9 billion people by 2050. According to the Food & Agriculture Organization of the United Nations (FAO), we must increase our production of food by more than 70% in order to continue to feed our families (Isaacson, 2015). By these figures, we will have run out of food by then because we will not have enough land to grow it on. This means major changes are coming in order to continue to farm and produce food to feed the families all over the world. More so, what is hydroponics and what does all this mean? Everyone needs to be involved in hydroponics as a grower and/or a buyer of the produce.

There are three key sources for growing plants: air, water and nutrients (Ring, 2014). Soil is not needed as long as the major sources (water and air) are established. The key term “no soil” is what really defines hydroponics. Hydroponics began as early back in the 1860’s, identified and performed by Julius von Sachs and again in the mid 1960’s by W Knop. The two worked together and studied the use of nutrients in water to possibly establish the idea of plants still being able to grow and produce. Around 70 years later, it had become such a huge production that larger plants could utilize the system. It was finally given the name “hydroponics” in the late 1930’s (“Hydroponics,” 2015).

Hydroponics is gardening inside. By using this method, indoor plants are able to have a higher yield of production. This means that plants are able to be grown at a faster rate. Hydroponics uses mineral-enriched water instead of using soil. Therefore, a lot of water is saved because the water is recycled instead of wasted like it is when watering plants in soil. The big difference here is root structure. In the wilderness, roots grow deep and spread out and are subject to the wildlife and Mother Nature around them. With hydroponics, though, the

roots grow together as one stem system (Vivian, 1998). This allows for the plant to grow at a comfortable rate. Vertical growing (as long as there is sufficient sunlight) is also possible. Using this method, plants can take up a lot less space than plants grown outside (Isaacson, 2015). Growing plants inside is a great way to not be affected by any bad weather like droughts or extreme freezing temperatures. There are also fewer pesticides involved than in traditional growing. According to Ralph Seizer, “You use far less [sic] pesticides in this type of growing and it has fewer bugs” (Personal interview, May 12, 2016). This is another example of how this is a safer method for your family. One of the greatest things about hydroponics is that there is no weeding involved. This is a big seller for some people! The time is now, so what are you waiting for?

Starting a hydroponics farm has gotten easier over the years. While it may not be a good idea to go and start a huge farm, a farm on a smaller scale for personal use would be a great start. So while some may not be ready to start a farm today, good research and careful planning will sure pay off in the future when you are ready to start your own (Vivian, 1998). Now might be the time, though, as supplies are getting cheaper and more manuals have become readily available. Imagine if you could have a garden growing your own food source. You would also be privy to year-round (yes, year round—remember what this was all about) fresh supply of vegetables. While this may not be your thing, then this is a great chance to start buying local so you can support your own economy. Buy Good, Buy Local! Remember, it is not a matter of “if” but a matter of “when.” Will you be ready to take care of yourself and your family?

Local restaurants have caught wind of this buzz and are relying more on hydroponic farms. This is partially due to the overwhelming winter storms as well as the extreme heat conditions seen in many states. Primarily California being affected by these droughts. California is the leading producer of supplying these fruits and vegetables to the entire country (Fleisher). This is a great way to support the local economy by buying local from hydroponic farmers. Hydroponics as a whole is expected to grow around 17% or more between now and the next five years (Fleischer, 2016).

While all this sounds great, there is so much more to share. Although it has far more advantages than disadvantages, there are still some disadvantages. “Disadvantages of using a soilless system include having to maintain the balance of nutrients in the solution, pH monitoring, pump maintenance, and a high initial cost. These disadvantages are being overcome with automation, human ingenuity and commercialization” (Ring, 2014). According to Ralph Seizer (Personal interview, May 12, 2016) different vegetables require a different formula. Even different types of tomatoes have their own formula for growing. For example, Roma tomatoes may have a different growth formula than beef-steak tomatoes. This is one of those growing-pain situations that over time can be figured out and implemented into the system. Another disadvantage is that it has not gone into full swing yet all over the country. This only means it may be harder to find a hydroponics farmer. With it gaining speed every day, it will not be long until they are on every commercial road. Until then, it will be hard for the current hydroponic farmers to keep up with the demand due to the ever-increasing popularity. More effort and research has been put into traditional farming is the reason hydroponics had trouble starting in the past (Goodwin, 2014).

The advantages certainly outweigh the disadvantages with the whole overall idea of hydroponic farming. After all, never weeding again will make a lot of people happy. People like to eat healthily, so eating the hydroponic way is the way to go. Fewer pesticides, does not rely on the weather, and just an overall great benefit to any community--the advantages are evident. Sure, the disadvantages are there; not many people are doing it yet and the trial and error can be irritating before producing your best garden ever. However, as time goes on, these little kinks will work themselves out.

If we are expected to house a couple billion more people in the next 50 years, then we need to do something now so that our children and their children are able to put food on the table. We only have one earth and one life; we need to make the most of this incredible adventure. The time to act is now while the prices are still good. Once this really kicks off, it is just like anything else, and when there is a huge demand, then everyone wants to do something. Will you be ready when the time is near? Are you ready now? Jump on board with hydroponics now so you can enjoy your own fruits and vegetables and reap the benefits of your own hard work.

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