

Hydroponics ensures safe produce for consumers

People kept on adapting to the changing environment. As drastic changes in the weather and the need for a safe and reach-in production increases, people shifted to modern means of cultivation. Hydroponic gardening is a concept that people may not knew, but has existed for more than 38 decades. As early as 1627, hydroponics has been conceptualized by Bacon and publicized by Gericke in 1937. Nowadays, the said procedure has been adapted in Canada and other countries, due to its efficiency and the accessibility of the technology.

Hydroponics culture is means of using water (with mineral solutions) in cultivating plants. In the 90s, scientist discovered that plants do not need soil in order to grow but uses ionization in the process. The system of hydroponic is being adapted in agriculture for its claimed advantages. To mention:(1) nutrient solutions may be re-used in other areas such as potted plants and turf management; (2) Growing mediums can be re-used and recycled (3) culture and technique requires less space; (4) non-arable land can be accessed and facilitated; (5) reduction of agriculture overhead costs (transportation, fuels,manpower etc.); (6)plants develop stronger resistance; and farmer/ agriculturist has more control of the plants nutritional intake through controlled conditions in the process.

The procedure entails dissolving of nutrients in the water. Nutrients are more of inorganic and ionic form. This includes calcium, magnesium, potassium, nitrate, sulfate and phosphate nutrients which are essential to plants. The first three mentioned are the positively-charged ions introduced to the solution while the latter are the major nutrient anions.

The biggest producer in the world that uses the hydroponics technology can be found Willcox, Arizona, Eurofresh Farms. This produced metric tons of tomatoes in 2005.

The said technology is within the reach of consumers with the availability of built-in hydroponics technology that can be used not only for agricultural production but also for gardening.

The system is more being built in a greenhouse where the environment is thoroughly controlled. With pest problems reduced, and nutrients constantly fed to the roots, hydroponics productivity is set at maximum level. Climate and infestation are being manage to achieve fresh and undamaged produce. This is through sealed greenhouses administered with carbon dioxide into the environment to sustain growth (CO2 enrichment) and reduction or addition of the lights.

About the Author

Jovan Gomez is the webmaster of [hydroponics dictionary](#) . It was designed and contributed to by many authors that bring a wealth of information and experience about the [hydroponics](#) industry.

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