

Hydroponics in commercial food production

People pay a premium price for organic produce to ensure high quality. However, with the onset of hydroponics in 1930, this marked the change of agricultural production from conventional to the growing trend of hydroponics farming.

Hydroponics is a means of soil less production at which nutrients are supplied to the crops through nutrient solution.

Food production

In the US, the hydroponics have been phenomenal in food production. First produce of this agricultural procedure are tomatoes but nowadays, farmers are trying out other crops like lettuce and cucumber. The paradigm shift was due to its claimed advantages that crops are better produced with hydroponics since the growing conditions of crops are controlled. As estimated, in US statistics, it is expected that within the next 5 years, 50% of the mentioned crops would be produced using hydroponics farming. Top growing hydroponics facilities in the US and Canada report average yields of more than 650,000 pounds of tomatoes per acre.

The largest hydroponics farming facility can be found in Europe, with Euro-fresh producing tons of tomatoes in the previous years. Moreover, studies show countries having substantial commercial hydroponic production facilities includes Israel – 30,000 acres, Holland 10,000 acres, England 4,200 acres and Australia and New Zealand around 8,000 acres between them. The fastest growing area for commercial vegetable greenhouses is Mexico.

Hydroponics is favored not only due to its efficient nutrient supply system but also due to reduced produce risks such as effect of food pesticides and crops pest. Plants grown hydroponically are not at risk of soil borne diseases and are much less susceptible to pests. Moreover, yields are higher without the hassle of environment conditions since crops can be cultured in greenhouses. This also gives the advantage of seasonal extensions of growing of crops. A good example would be Mexico which adapted the system due to its winter conditions and too hot summer.

Cost of farming

The initial investment for hydroponics farming has been more economical than the first introduction of the procedure to farming, much more in lower scale. Vertical system of hydroponics farming has been developed in the recent years. Compared to the traditional flat garden the vertical system takes up less space and capitalizes on light energy supply. Vertical system can be used indoors with portable assembly materials and can be set-up on per plant basis. While new techniques and set-up has been developed to lower the set-up cost, farmers testifies that cost of farming has been lowered due to less use of pesticides, irrigation system and lower risk costs.

The growing global market trend of hydroponics will continue to surge due to its efficiency and high quality of production. Though much of the producers are based in the First world countries, many greenhouses in other countries use hydroponics technology, indicating that hydroponics have been recognized for its efficiency in agricultural production.

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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