

Urban agriculture is the practice of cultivating, processing, and distributing food in or around urban areas.

Also, urban agriculture production system can be broadly categorized as Hydroponics, Indoor Farming (CEA: Controlled Environment Agriculture), Vertical garden and Container garden.

#### References:

MUNOZ, Hector, 2005. Hydroponics Home-Based Vegetable Production System Manual, IICA Georgetown, Guyana

ECHEVERRIA, Laura Perez. 2008. Hydroponics for Home. IICA, San Jose, Costa Rica ROBERTO, Keith. Fourth edition. Hydroponics Technology.

Source: https://www.trees.com/gardening-and-landscaping/seed-starting-hydroponics



For more information, kindly visit or call us:

### **Bureau of Plant Industry**

Crop Research and Production Support Division 692 San Andres Street, Malate, Manila 1004 02-85257313; 02-85217650 bpi.crpsd.planning@gmail.com

Prepared by:

Jerico F. Noynay Revelyn G. Banquirig Radny B. Espera Mary Ann B. Guerrero Julie Ann A. Aragones Leah M. Morante Melvin C. Banagbanag



# Hydroponics Hydroponics is a technique for growing plants without soil and plants can grow indoor and outdoor depending on the available area. Utilizing this technology, the roots absorb balanced nutrient dissolved in water that meets all the plant developmental

## Steps in Hydroponics Cultivation

1. Sowing stage-Choose a seed that has high germination rate and doesn't have damaged seed coat.

Place the seeds in a horticultural foam with perlite.

Transplanting- Seeds that have germinated is ready to transplant if it shows at least one inch of stem.

This is a fragile growth stage of their growth, be extremely gentle.

Seedlings with hydroton/ clay pebbles in plastic net cup. When the roots are poking out of the cube, prepare the plastic net cup with growing medium such as hydroton or clay pebbles.

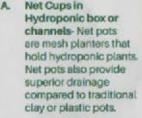
3. Snap Solution Preparation-Pour the solution to the hydroponics box or channels.

Make sure that the seedlings are submerged in water solution.



### **Types of Hydroponics**





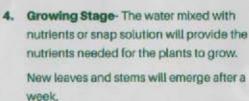


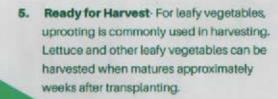
Hydroponics A-Framethis technology is A shape hydroponic design and used in outdoors for growing vegetables without using soils. This type of technology with a plastic cover that avoid direct sunlight and helps the plants to grow by using snap solutions..

- Hydroponics Tower garden-is vertical structure for growing plants vertically. but nutrients are supplied hydroponically.
  - Indoor Set-Up with Grow Lights-Complete Set-Up Package-this technology is used for indoors, it uses grow lights to grow plants like leafy vegetables like lettuce, pechay and mustard. It can plant === 120 pcs of leafy vegetables for this type of hydroponic and can harvest for short period of time.



SPECIAL PROPERTY.











requirements.

