

# Hydroponics

## Hydroponics

production of plants without a soil medium; utilizes only water, sunlight and nutrients

## Macro-nutrients

needed by plants in large quantities; includes nitrogen, potassium and sulfur

## Micro-nutrients

needed by plants in small quantities; includes boron, copper and iron

## Artificial Growing Medium

material used for the support and stability of hydroponic plants; includes sand, gravel, peat moss and sawdust

## Aquaculture Systems

utilizes only nutrient infused water and system structures to produce plants

## Aeration

process of circulating air throughout a substance

## Aggregate Systems

utilizes aggregate as a support medium for plants; utilizes flooding techniques which reduce water usage and drain afterwards, allowing the roots to aerate

## Aggregate

most often in the form of sand or gravel

## Gravity Feed Systems

aggregate system which utilizes gravity to provide nutrient solutions to plant roots

## Manual Gravity Feed Systems

aggregate system which utilizes gravity to provide nutrient solutions to plant roots; manual operation is needed to drain used nutrient solution

## Sub Irrigation Systems

pumps a nutrient solution into aggregate beds from a reservoir most often located below the aggregate bed

# Hydroponics

## Aeroponic Systems

hydroponic system with containers holding growing roots and watered using misters

## Continuous Flow Systems

hydroponic system with continuous flow of nutrient solutions over the plant roots; are the most common hydroponic system utilized by commercial producers

## PVC Pipe Systems

continuous flow system which use PVC pipes to hold plants and provide continuous flow of nutrient solutions

## Nutrient Film Technique Systems

continuous flow system which use flexible plastic tubing supported by wooden trays to hold plants and provide a continuous flow of nutrient solutions

## Pipe Dream Systems

continuous flow system which uses mesh tubing with vertical inserts filled with peat moss to hold plants and provide a continuous flow of nutrient solutions

## Hydroponic Plants

plants with the feasibility to grow hydroponically