

Aquaponics Vocabulary

Aquaponics:

Aquaponics refers to any system that combines conventional aquaculture (raising aquatic animals such as snails, fish, crayfish, or prawns in tanks) with hydroponics (cultivating plants in water) in a symbiotic environment.

Aeroponics Tower:

A tower or tall structure with holes throughout the wall which holds the plants and allows the plants' roots to hang out in the back of the tower. A nutrient mist is applied periodically to the root section. This method allows many plants to grow in a small area.

Clay Aggregate:

Expanded clay is a lightweight aggregate made by heating clay to around 1,200 °C in a rotary kiln.

Closed loop:

Is a complete path for water circulation with no water loss.

Deep Water Culture:

DWC is a method of plant production by means of suspending the plant roots in a solution of nutrient-rich, oxygenated water. Also, known as raft/pond or float systems, this method uses floating rafts to suspend plant roots into a pond of water.

Drip System:

A long line (tube) carries water to plants growing in the clay aggregate.

Flood and Drain:

Is a method that allows water to rise and fall to allow plants to receive the needed nutrients.

Nutrient Film Technique:

NFT is a hydroponic technique where in a very shallow stream of water containing all the dissolved nutrients required for plant growth is re-circulated past the bare roots of plants in a watertight channels/gutters.

Nitrate:

A chemical compound that includes nitrogen and oxygen. Nitrates are used as fertilizers.

Perlite:

Is a volcanic glass that has a relatively high water content, typically formed by the hydration of obsidian.

Subterrain:

Underground/ (prefix sub-under + terrain-type of land)

Sustainable:

A system that can be continued at the same pace or level of activity without harming its efficiency and the people affected by it.

Wicking:

The system is designed to increase food production while using approximately 50% less water than traditional irrigation, by utilizing underground water reservoirs filled with decomposing organic matter and the process of evaporation. (A thin layer of water comes from the bottom of the bed and meets with the perlite and roots of the plant.)

Helpful Insects for Plants

Ladybugs



Ladybug facts:

- Ladybugs have 5 stages: egg, larva, pupa, young ladybug, and adult.
- There are about 4,300 kinds of ladybugs.
- Female ladybugs can eat as many as 75 aphids in one day.
- Ladybugs smell with their feet and antennae.
- Female lady bugs are larger than male ladybugs.



What is a Praying Mantis?

- ▶ The praying mantis is an insect. It has a triangular head and has a stance that looks like it is praying.
- ▶ The praying mantis is a predator that feeds on a variety of insects, including: moths, grasshoppers, crickets, and flies.
- ▶ They can be different colors, based on their habitat, ranging from green to pink to brown.
- ▶ The camouflage of the mantis makes it a great hunter.
- ▶ The average praying mantis can live from six months to a year.



Baby praying mantis hatching from their cocoon:



Damselfly