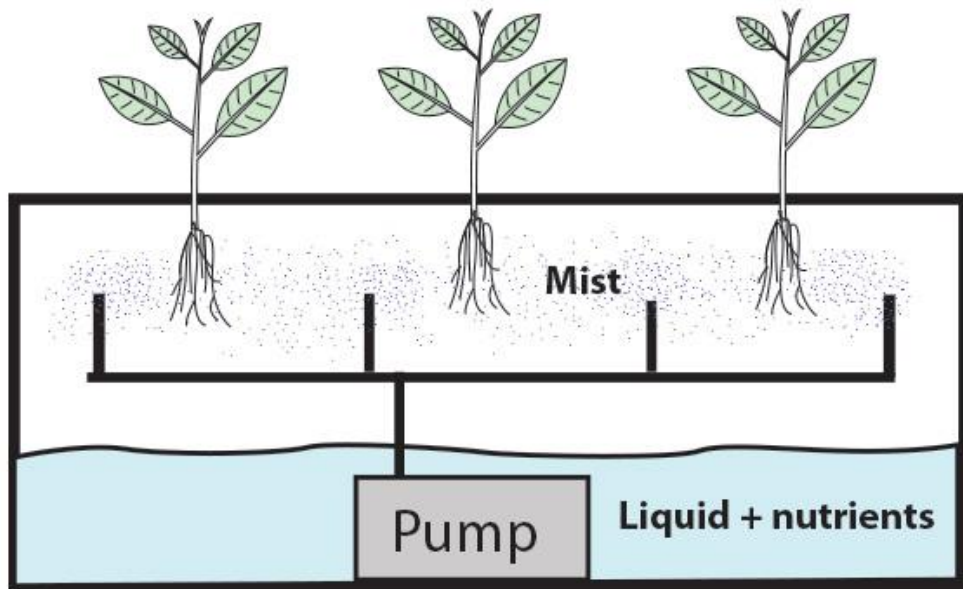


Aeroponics

Aeroponics is the process of growing plants in an air or mist environment without the use of soil or an aggregate (known as geponics).



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Advantages of Aeroponics

- Fast plant growth – The chief feature of aeroponics. Plants grow fast because their roots have access to a lot of oxygen 24/7.
- Easy system maintenance – In aeroponics, all you need to maintain is the root chamber (the container housing the roots) which needs regular disinfecting, and periodically, the reservoir and irrigation channels. The constant semi-moist environment of the root chamber which invites bacterial growth is the only main drawback of all aeroponic system maintenance.
- Less need for nutrients and water – Aeroponic plants need less nutrients and water on average, because the nutrient absorption rate is higher, and plants usually respond to aeroponic systems by growing even more roots.
- Mobility – Plants, even whole nurseries, can be moved around without too much effort, as all that is required is moving the plants from one collar to another.
- Requires little space – You don't need much space to start an aeroponics garden. Depending on the system, plants can be stacked up one on top of each other. Aeroponics is basically a modular system, which is perfect for maxing out limited space.
- Great educational value – You can learn a great deal about plants from aeroponics. Kids especially will love having a small aeroponic system to grow a pet plant, without having to get their hands dirty.

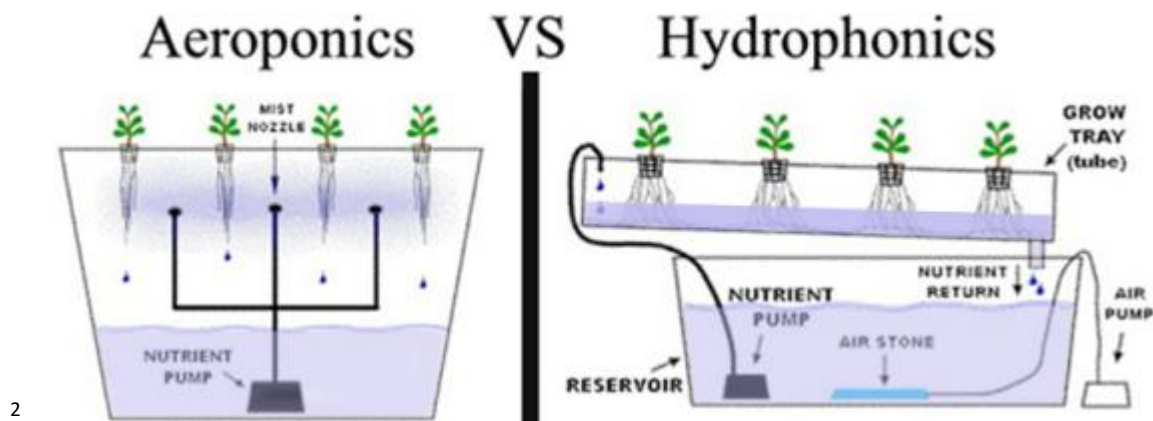
¹ <https://www.gardeningsite.com/aeroponics/aeroponics-benefits-and-disadvantages/>

Disadvantages of Aeroponics

- Dependence on the system – A typical aeroponics system is made up of high pressure pumps, sprinklers and timers. If any of these break down, your plants can be damaged or killed easily.
- Technical knowledge required – You need a certain level of competency in running an aeroponic system. Knowledge of nutrients amounts required by your plant is essential, because you don't have any soil to absorb excess/wrong nutrients supplied.
- Regular cleaning of the root chamber – The root chamber must not be contaminated, or else diseases may strike the roots. So you need to disinfect the root chamber every so often. Hydrogen peroxide is often used as disinfectant.
- High cost – Most aeroponic systems are not exactly cheap. Aeroponic systems may cost many hundreds of dollars each. The most affordable one I noticed, is still the one by AeroGrow, a unique form of commercial "aeroponics." Edit – Some folks point out that AeroGrow is not aeroponics – I think it is still a great system for small premises.

Aeroponics vs Hydroponics

Hydroponics, uses a liquid nutrient solution as a growing medium and essential minerals to sustain plant growth. Aquaponics which uses water and fish waste. Last year's entry was a mix of both Aquaponics and Hydroponics, in that fish waste water was used in place of the essential minerals that would usually be used for Hydroponics.



² <https://mrtipmisters.wordpress.com/aeroponics-hydroponics-explained/>