

Aeroponics

Like hydroponics, aeroponics are a form of soilless agriculture in which the plants are fed through a nutrient rich water solution running through the system. Unlike hydroponics though, which pumps running water with nutrients through the system, aeroponic systems aerosolize the nutrient rich water and introduce it to the suspended plant roots in the form of a mist or fog.



Suspended roots in an aeroponic system (photo source: farmxchange.com)

Beyond being a super sweet way of watering your garden, aeroponics has distinct advantages over hydroponic agriculture. While hydroponically grown plants still require a medium for the roots to grow through and the water to be absorbed by, aeroponic systems can skip this step entirely, saving the futuristic farmer time and money. This also allows for aeroponically grown plants to be moved and transplanted very easily, and without subjecting it to transplant shock and compromising growth. Additionally, because hydroponics require liquid water to run through the roots, the systems are flat or sloped by necessity. Converting the water to a mist and delivering it through the air allows for space-saving and sci-fi looking vertical farming.