

SOIL-BASED SYSTEMS

Table 3-3: Advantages and Disadvantages of Soil-Based Growing Systems

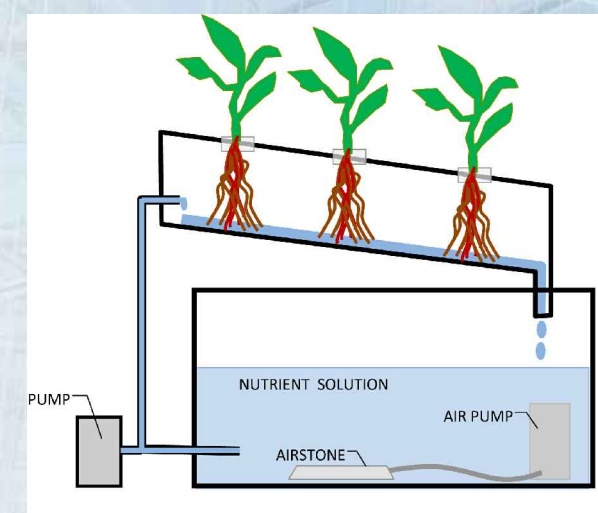
Advantages	Disadvantages
<ul style="list-style-type: none"> • Less initial cost • Cost of production of some vegetables is less • Greater tolerance for varying nutrient levels, with less potential for accidental high or low nutrient additions that could be harmful to crops • Typically requires less maintenance than hydroponic systems • Allows for bedding crops to be grown 	<ul style="list-style-type: none"> • Higher potential for plant disease • Soils must be closely managed, including periodically rejuvenated (labor intensive) • Soil moisture must be carefully monitored, both for poor drainage or overwatering, or for excessive drying • Chemical condition of soil must be carefully monitored (especially in pots)



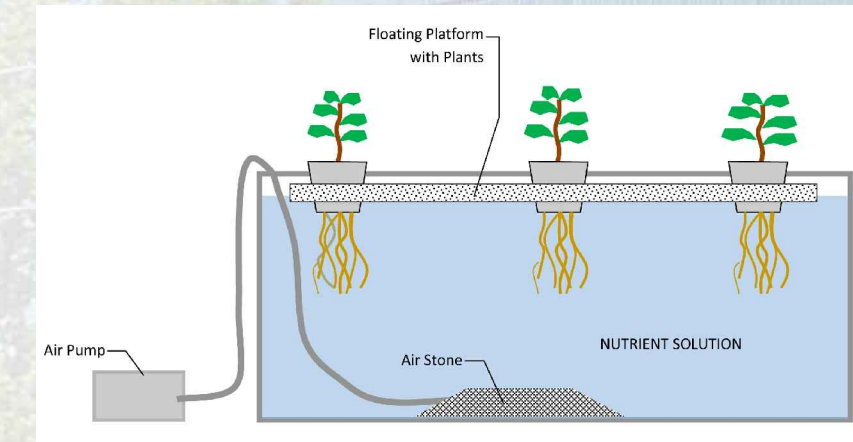
HYDROPONICS

Table 3-2: Advantages and Disadvantages of Hydroponic Growing Systems

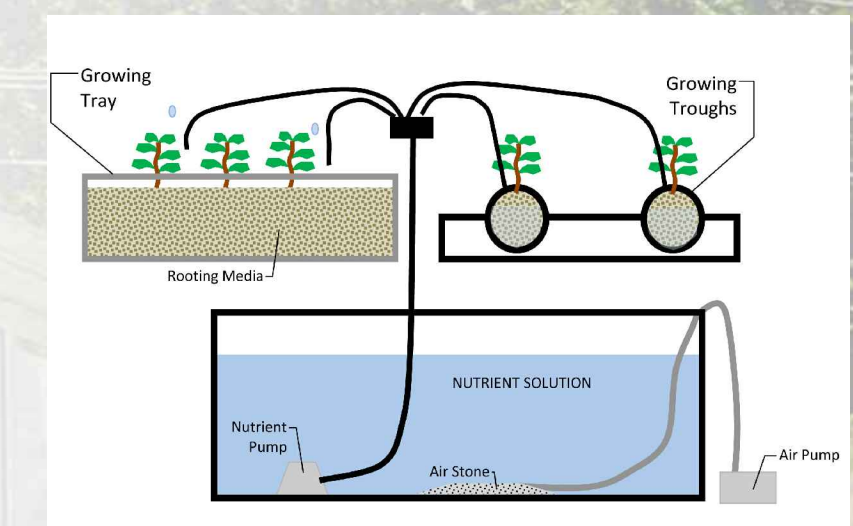
Advantages	Disadvantages
<ul style="list-style-type: none"> • Can produce more crop per square foot of greenhouse space • High water use efficiency if recirculating systems are used • The watering/nutrient delivery system is most often automated and can be adjusted • Reduced potential for disease • Substrate media can last for multiple crops and is easily replaced • Typically lower labor requirement and cost 	<ul style="list-style-type: none"> • High initial cost • Typically requires more maintenance • Must calculate and plan nutrient additions to solution • The potential for errors is higher and with greater impact on plants • Generally, the entire system must be devoted to a single crop type • Not conducive to organic vegetable production



NUTRIENT FILM TECHNIQUE



WATER CULTURE



DRIP SYSTEM

ORGANIC VS. STANDARD PRODUCTION



GREENHOUSE GROWING SYSTEMS