

	Hydroponics	Aquaponics
Principles	Conventional	Biological
Recirculation	Possible	Closed loop
Source of nutrients	Synthetic fertilizers	Fish waste, nutrients released due to biological activity
Beneficial microorganisms	Practically excluded	Essential part of the system
Building multitrophic relationships in the system	In some extent	Yes
Balance	One-component system	Balanced
Self-regulation	No	Yes
Creating an ecosystem	No	Yes
Stability of a mature system	Not stable	Very stable
Knowledge base	Plant physiology	Ecology, plants, fish, microorganisms

Hydroponic and aquaponic comparison chart, Source: Savidov, 2016