Hydroponic cultivation techniques and industrial application in strawberry *(Fragaria spp.)*

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What?

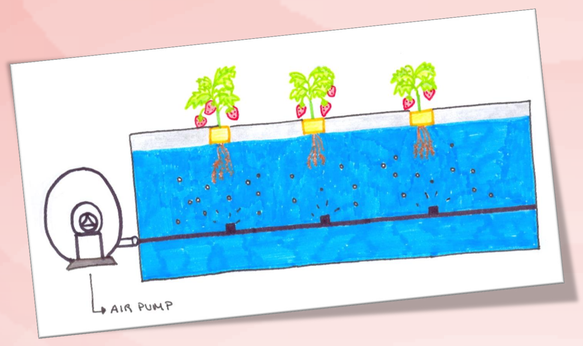
«*Hydros – Ponos*» → crop without ***land***

How?

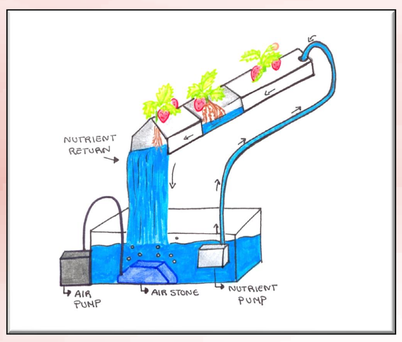
J.Benton Jones (1984)

Water crops

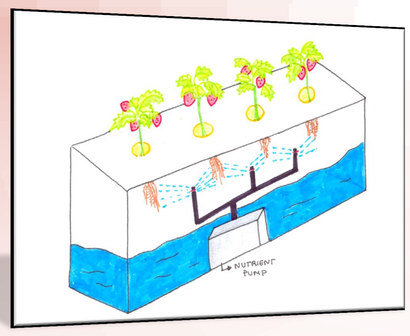
Floating
"Standing aerated"



NFT
"Nutrient Film Technique"

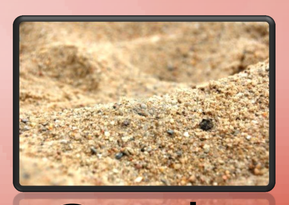


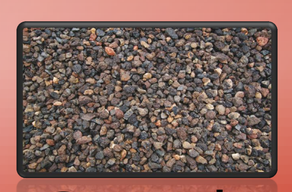
Aeroponics



Media crops

Inorganic


Sand (2)


Gravel (3)


Perlite (1)

Organic


Peat (4)

Why?

«Strawberry is one of the most exported product nationwide»

«We can know which minerals are needed in every part of the growth cycle» (Chow K.K et al., 1992)

- Faster growth rate.
- Control over nutrition.
- Control over conditions.
- Crops effective surface optimized.
- Plants health improve.
- Effective irrigation management.
- Automation and monitoring.
- Better aeration in root-zone.

- Complete farmer dependence.
- Inert substrate not biodegradable.
- Expensive (build, maintenance and repair).
- Drip irrigation may be blocked.

References:
Chow K.K et al.**1992.***Nutritional- requeriments for growth and yield of strawberry in deep flow hydroponics systems*. Scientia horticulturae. 52(1-2): 95 -104
J. Benton Jones, Jr. **1997**.*Hydroponics: a practical guide for the soiless grower. 2nd ed. CRC press,* ***440****. ISBN: 9780849331671.*

Images References:
(1): http://www.jardisen.cl/parts/comosustratos.html
(2): http://jimarconstrucciones.com/1
(3): http://www.blackbruc.com/es/grava-volcanica-gris.aspx
(4): http://www.rcdgs.com.ar/productos/turba.php