Non Drain System



Hashkaya Ecologit Ltd

P.O.B 7553 Ramat Gan 52-17501 Israel Tel: 972(0)54 818 98 21 Email: office@hydroeco.com N.D.I.S. the new low maintenance hightech system

The company has developed an innovative technology to produce vegetable and ornamental crop in a non-drained system

In the new technology the irrigation system is based on capillary upward instead of other methods downward

Using this technology enables the saving of about 80% of water and mineral fertilizers normally required by such crops while increasing yields by more than 20%.



In the new technology the plants grow in a sealed cultivate tank and the fertigation liquid is automatically supplied to the bottom of the container with the aid of a level sensor. The cultivated tank is filled with three layers of specific substrates which enable the capillarity process.



The capillary process pushes the water up to the upper layer and the young plant start to grow roots.

As every plant has the trait to grow roots to the wetted area, the plant roots grow quickly down to the wetted area. Once the roots have reached the wetted area, it stops growing.



Once the roots have reached the wetted level, all the energy of the plant is turned to the upper part of the plant and the stems, leaves, flowers & fruits start to grow quickly.



The plant sucks the water & the nutrition through the roots and salts that the plant did not use are left in the water.

These salts (liquid) move upwards (by the capillarity process) and accumulate in the salty level.



- Significant improvement in harvest production and higher yields (>50% increase in certain crops).
- Significant water saving, 50% 80%.
- Significant savings in fertilizer consumption.
- Shorten the time of growth by > 30%.
- Simple, extremely reliable, and cost effective system.
- Environmental and ecological advantages, including no drainage water, no salt and mineral accumulation, no underground water contamination, no need for Methyl Bromide use, and other environmental advantages.
- Possible use of salty water.

Vantage

- Containment of soil-borne pathogens, reducing the risks of lost crops due to pathogens diseases.
- Shorter cultivation periods leading to additional operating efficiencies and higher productivity ratios.
- Reduced operating costs associated with purchasing and operating existing recycling systems that are currently in use with SL equipment. In addition, the system is purely mechanical and therefore additional energy costs are saved.

Growing Period



Water Consumption





There is no need for electricity, nor for controllers, valves, drippers or other irrigation equipment.



1.5 meter higl







Comparing Vorganic system (growing in soilless) with the classic drip system (soil)

(watch the leaf size)

Tree container



























PRODUCTION

