



Newsletter-June 2012

Hydroponics



From the Editor

Hydroponics, a method of cultivation without using soil as the growing medium, is mostly adopted in a protective greenhouse. Cultivating vegetables hydroponically in a controlled-environment greenhouse (CE greenhouse) enables them to prosper in stable and suitable conditions, thereby producing yields faster than those cultivated in soil in the same season. Influenced less by inclement weather and pests, hydroponic vegetables are fresh, tender and hygienic while steady production can be maintained. This issue features two farms in the New Territories that have put on trial hydroponic production of vegetables in a greenhouse.



Growing hydroponic vegetables with automatic facilities in a CE greenhouse

In his CE greenhouse of 3 350 sq.m., the owner is experimenting the production of lettuce and some brassica vegetables with automatic hydroponic recirculating facilities. Initial results are satisfactory.

A view of the CE greenhouse



Nutrient solution recirculating and storage system equipped with filtering and disinfecting facilities



Water pads and ventilating fans are used for controlling the humidity and temperature of the greenhouse



Hydroponic vegetables grown in the greenhouse are thriving



Sturdy roots support healthy plants



Growing hydroponic vegetables in a plastic-tunnel greenhouse

The greenhouse owner has set up hydroponic troughs and a semi-automatic nutrient solution recirculating system in a small-scale plastic-tunnel greenhouse. Various varieties of quality lettuce are produced in a simple and cost-effective way. Plans are in the pipeline to extend the production site for continuous development.



Hydroponic vegetables grown in the plastic tunnel



Specially-made storage and delivery container for the nutrient solution



Well-grown produce

Robust roots of vegetables



Application of hydroponics technologies in a greenhouse for speedy and safe production of fresh and tender vegetables for supplying the market is a promising mode of vegetable production. However, investment costs of greenhouse hydroponics are relatively high, and industry players have to acquire certain techniques before they can achieve effective production.

