

Controlled-Environment Greenhouse



Agriculture, Fisheries and
Conservation Department

Newsletter – December 2018

Controlled Environment
Hydroponic Research and
Development Centre (III)



From the Editor

The Controlled Environment Hydroponic Research and Development Centre (the Centre) of the Vegetable Marketing Organization was set up in March 2013. Apart from being used for demonstrating the production process of hydroponic vegetables, the Centre is also used for conducting related research and development work. We also share the research results and experience with the industry so as to promote the development of the local hydroponics technology. We are going to introduce the recent research and development work carried out by the Centre in this issue.



Cultivation of New Species

Half of the Planting Area in the Centre continues to be used for demonstrating the process of hydroponics production while another half is used as the Testing Area for trying to cultivate new crop species and testing new technologies. Currently, we are trying to grow broccoli, red komatsuna, choi sum and Chinese White Cabbage (Hok Tau), with an aim of cultivating more vegetable species suitable for hydroponics that can be served as a reference for the industry so as to diversify hydroponics production and provide more choices in the market. According to the test result, all of the above four vegetables can be grown by adopting hydroponics and choi sum and Chinese White Cabbage (Hok Tau) taste especially sweet.



Red komatsuna



Choi sum



Broccoli



Chinese White Cabbage
(Hok Tau)



Hydroponics Technology Tests

The Centre has tested the efficiency of light emitting diode (LED) and high-frequency HID lamp, with an aim of comparing the impact of the two types of light sources on crop growth. According to our preliminary observation, both types of light sources can enable crops to grow normally under the same duration of lighting. The difference between the two is not obvious. Nevertheless, the energy consumption of LED is lower than that of the high-frequency HID lamp and the amount of heat generated by LED is also lower, so LED is more competitive in energy saving. The Centre will continue to conduct tests and observation to acquire a deeper understanding of the merits and drawbacks of the two types of light sources



Light emitting diode (LED) for cultivation



High-frequency HID lamp for cultivation



AFCD Home Page:
<http://www.afcd.gov.hk>

For more information and visits to greenhouses, please contact:
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