

# Controlled-Environment Greenhouse



Agriculture, Fisheries and  
Conservation Department

## Greenhouse Maintenance and Automation

Newsletter – June 2021

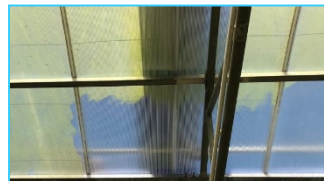
### From the Editor

Due to accumulation of dirt on and aging of the polycarbonate sheets/polyethylene films of greenhouses after prolonged use, the light penetration level diminishes. This may reduce the efficiency in light absorption by crops inside the greenhouses, slowing down their growth. This issue of the newsletter features greenhouse maintenance and the benefits of greenhouse automation.

### Maintenance of Polycarbonate Sheets/ Polyethylene Films of Greenhouses

- Remove dust, moss, etc. from the polycarbonate sheets/polyethylene films regularly to maintain high light transmission.
- Polycarbonate sheets/polyethylene films may subject to wear and tear after prolonged use. They should be replaced from time to time to maintain productivity.

Washing polycarbonate sheets of a greenhouse



A greenhouse with polycarbonate sheets replaced



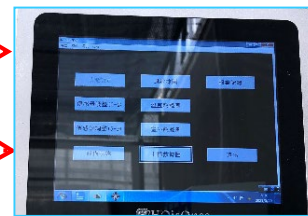
### Installation of Greenhouse Automation Systems

- A control system that allows remote control in real time can be installed for greenhouses during renovation.
- Various greenhouse equipment can be controlled according to the conditions of the greenhouses (such as temperature, air humidity, light intensity, soil moisture, wind speed, etc.).

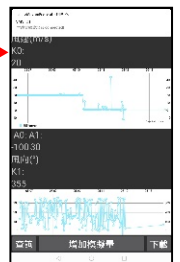
remote control



A computer in a greenhouse



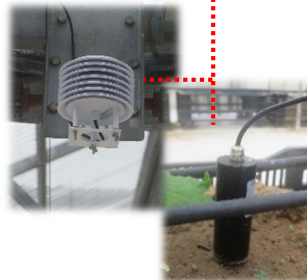
Data records



### Benefits of Automated Greenhouse Operations

- Controlling greenhouse equipment remotely.
- Pre-setting schedules and directives for automatic activation of equipment according to the actual circumstances.
- Enhancing productivity by reducing manpower and improving growth environment of crops.

Various measuring devices



Controlled irrigation



Controlled machinery



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

For more information and visits to greenhouses, please contact:  
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