

New technologies applied to enhance growth rate of vegetables by Hydroponic Centre

The Agriculture, Fisheries and Conservation Department (AFCD) and the Controlled Environment Hydroponic Research and Development Centre (Hydroponic Centre) announced to the agricultural industry today (November 22) that two new technologies, namely the Changeable Spectrum Grow Light Technology and the Nano Bubble Technology, can effectively enhance the growth rate of hydroponic vegetables. Four new vegetable varieties which have been successfully grown recently at the Hydroponic Centre using controlled environment hydroponic technology were also introduced.

Since its inauguration in 2013, the Hydroponic Centre has served as a demonstrator of advanced hydroponic technology and facilities for the industry and investors. With a view to enriching the variety of hydroponic vegetables grown locally and offering more options for the market, it has also carried out research and development (R&D) work including the selection and testing of new varieties.

The Agricultural Officer (Horticulture) of the AFCD, Mr Chan Siu-lun, said, "Trials of the Changeable Spectrum Grow Light Technology and the Nano Bubble Technology have been jointly conducted by the Hydroponic Centre and the Nano and Advanced Materials Institute Limited (NAMI). NAMI is a research centre designated by the Innovation and Technology Commission. NAMI makes use of light emitting materials to develop grow light with desirable growth spectrum suitable for planting. The proposed spectrum can be adjusted to fit different growth stages of plants. This can enhance the growth of vegetables. Trial results revealed that with the support of the spectrum, the growth of red oak leaf lettuce sped up 20 per cent, red coral lettuce sped up 30 per cent, and green oak leaf lettuce and green butterhead lettuce sped up at least 50 per cent."

With the Nano Bubble System designed by NAMI, the Nano Bubble Technology can increase the amount of dissolved oxygen in water, which can enable seedlings and plants to grow faster. With the help of this system, the seed germination rates of different vegetables in the Hydroponic Centre are able to increase between 3 per cent and 36 per cent, and the growth of hydroponic vegetables using the system also sped up significantly.

Moreover, the Hydroponic Centre also shared four new varieties, namely 60-day choy sum, hok tau pak choy, spinach and shan kwai choy, with the industry. 60-day choy sum, spinach and shan kwai choy have been introduced from the Mainland, Japan and Taiwan respectively, while hok tau pak choy is a local variety. With their unique tastes and textures, in addition to high nutrition value, these vegetables are ideal for making different types of dishes. Production for these varieties is simple, taking 28 to 48 days to

harvest depending on the individual variety. By using controlled environment hydroponic technology, they can be produced throughout the year. These new varieties have been introduced to hydroponic operators who are encouraged to try growing them. Technical support is provided by the Hydroponic Centre when necessary.

Meanwhile, members of the public can purchase the hydroponic vegetables through the mobile application "Local Fresh" of the VMO.

The Senior Agricultural Officer (Crop Development) of the AFCD, Ms Wendy Ko, said, "In recent years, the AFCD has been proactively exploring different modernised production methods to enhance development of the local agricultural industry. We hope the Changeable Spectrum Grow Light Technology and the Nano Bubble Technology can be widely used in the future to speed up the growth of crops effectively."

Ms Ko noted that under the New Agriculture Policy, the Government will continue to promote the R&D of applied technology for agricultural production and facilitate knowledge transfer so as to achieve diversification in the mode of production for local vegetables. This would be conducive to enhancing competitiveness as well as the modernisation and sustainable development of the industry.

Speech by CS at opening ceremony of Sports and Arts Building at W F Joseph Lee Primary School (English only)

Following is the speech by the Chief Secretary for Administration, Mr Matthew Cheung Kin-chung, at the opening ceremony of the Sports and Arts Building at W F Joseph Lee Primary School today (November 22):

Dr Joseph Lee (Supervisor of W F Joseph Lee Primary School), Mr Alan Chow (Principal of W F Joseph Lee Primary School), His Eminence Cardinal John Tong Hon (Bishop Emeritus of the Catholic Diocese of Hong Kong), distinguished guests, ladies and gentlemen, principals, parents, students,

Good afternoon. I am delighted to join you all today at the opening ceremony of the Sports and Arts Building of W F Joseph Lee Primary School. First and foremost, I would like to extend my warmest congratulations to the school and to those who have contributed to the successful completion of this impressive facility.

The Sports and Arts Building marks a significant milestone in the continuous development of the school and the commitment of the WoFoo

Foundation to quality education. Since its establishment in 2002, the W F Joseph Lee Primary School has been offering a diversified curriculum and joyful learning environment within and outside classrooms to students for whole-person development.

The current setting of the campus is already well equipped with a dance studio, a library, a STEM room, a computer room, a campus TV studio, music rooms for Chinese and Western musical instruments, an art room, a science room, a band room and a mini-tennis court. The opening of this new building will offer a diverse education experience to students to unleash their potential. These facilities include an art gallery, an all-weather swimming pool, a roof basketball court, and a multi-purpose room for indoor exhibitions, theme-based seminars, gymnastic training and cheerleading team training.

The vision of the school to develop students to their fullest potential and become responsible and respectable future members of society is consonant with the current-term Government's mission to nurture the future generations into quality citizens who are socially responsible and equipped with a sense of our national identity, a love for Hong Kong and an international perspective.

Government expenditure on education is therefore the most meaningful investment for our future. It has always been the lion's share of recurrent spending of the Hong Kong Special Administrative Region Government. In the current financial year, our expenditure on education amounts to approximately HK\$113.7 billion, an increase of 28.4 per cent from HK\$88.5 billion in the previous financial year. This fully reflects the long-term commitment of the Government to education.

To better prepare our next generations for the challenges ahead, we have allocated considerable resources to promote the whole-person development of students. All along, the Education Bureau has been advocating the adoption of diversified learning inside and outside the classroom to boost students' interest in learning, and instil in them positive values and attitudes. To this end, the Policy Address this year announced the launch of a new recurrent Life-wide Learning Grant with an annual provision of \$900 million. The Grant will support public sector schools and schools under the Direct Subsidy Scheme to take forward, on the present foundation, life-wide learning with enhanced efforts through organising more out-of-classroom experiential learning activities in various curriculum areas such as the humanities, STEM education, physical and aesthetic development and moral and civic education.

I share the excitement and exhilaration of the teachers and students of this school over the grand opening of the Sports and Arts Building today. I am confident that building on its strengths and foundation, the school would fully utilise the enhanced facilities and the increased resources from the Government to further promote the whole-person development of students. With the concerted efforts of all the stakeholders, I trust that the school will continue to fulfil its mission of developing students as confident, innovative and resourceful individuals with broad horizons and positive

thinking.

Before I close, I would like to pay warm tribute to Joseph for his devotion to serving the community. On this note, I would like to congratulate WoFoo Foundation for another impressive community services project. I wish the school every success in the years ahead and all of you good health and happiness. Thank you.

Works contractors of Central-Wan Chai Bypass Project convicted for repeatedly causing noise nuisance and discharging substandard wastewater

The construction sites for the Central-Wan Chai Bypass (CWB) project had illegally carried out construction works during restricted hours seven times and discharged substandard muddy water twice. The main contractors concerned, Chun Wo Construction and Engineering Company Limited and China Railway Group Limited, and subcontractor Wah Keung Metal Engineering Limited and the related workers were convicted and fined \$157,500 by Eastern Magistrates' Courts today (November 22) for a total of 16 offences under the Noise Control Ordinance (NCO) and the Water Pollution Control (General) Regulations (WPC(G)R).

The Environmental Protection Department (EPD) received a number of complaints from May last year to January this year about noise nuisance generated by the construction works of the CWB project during Sundays and at night. After investigation, the EPD confirmed that the construction sites for eastern tunnel works of the CWB project (HK/2009/02) and Tunnel (North Point Section) and Island Eastern Corridor Link (HY/2009/19) illegally carried out construction works by using non-permitted powered mechanical equipment or exceeded the permitted number of equipment, and illegally carried out prohibited prescribed construction works a number of times during restricted hours at night and on Sundays.

In addition, during the EPD's inspections in June and August last year, it was found that the construction sites of the CWB Tunnel (North Point Section) and Island Eastern Corridor Link had discharged wastewater without proper treatment into storm drains twice. The wastewater samples showed that the concentrations of suspended solids exceeded the discharge standards stated in the licence by 172 times and 32 times respectively.

After investigation and evidence gathering, the EPD prosecuted the contractors, the sub-contractor and the related workers for seven cases of

noise nuisance and two cases of illegal wastewater discharge. The EPD has contacted the Civil Engineering and Development Department and the Highways Department and requested them to step up their supervision on contractors and to follow up the cases.

The spokesman stressed that construction contractors must abide by the law and comply with environmental legislation and requirements. According to the NCO, first-time offenders are liable to a maximum fine of \$100,000. A maximum fine of \$200,000 may be imposed on second or subsequent convictions.

The spokesman also reminded all construction site contractors to install appropriate wastewater treatment facilities and properly collect and treat wastewater to ensure that the discharge complies with the license requirements under the Water Pollution Control Ordinance. It is an offence for any person to discharge wastewater that does not comply with the license requirements. First-time offenders are liable to a maximum fine of \$200,000 and six months' imprisonment.

Import of poultry meat and products from Tengchong City, Baoshan and Luquan County, Kunming in Yunnan Province suspended

The Centre for Food Safety (CFS) of the Food and Environmental Hygiene Department announced today (November 22) that in view of a notification from the Ministry of Agriculture and Rural Affairs about outbreaks of highly pathogenic H5N6 sub-type avian influenza in Tengchong City, Baoshan and Luquan County, Kunming in Yunnan Province, it has followed the existing approach for control of highly pathogenic avian influenza and taken recommendations from the World Organisation for Animal Health into account to suspend the import of poultry and poultry products, including poultry eggs, from an area within a radius of 3 kilometres from the said places for a period of 90 days, and from an area within a radius of 13km for 21 days, with immediate effect for the protection of public health in Hong Kong.

A spokesman for the CFS said that according to information from the General Administration of Customs, the outbreaks do not affect any registered Mainland poultry farms that export to Hong Kong. No registered poultry meat or poultry egg processing plants are currently situated within the import restriction zones concerned.

The CFS will closely monitor the latest developments of the avian influenza case in the province and take appropriate follow-up action as

necessary.

LegCo Finance Committee meeting

The following is issued on behalf of the Legislative Council Secretariat:

The meeting of the Legislative Council (LegCo) Finance Committee (FC) originally scheduled at 3pm tomorrow (November 23) in Conference Room 1 of the LegCo Complex will start at 3.30pm (or an earlier time between 3.15pm and 3.30pm). If the preceding House Committee (HC) meeting ends before 3.15pm, the FC meeting will start at 3.15 pm; if the preceding HC meeting ends between 3.15 pm and 3.30 pm, the FC meeting will start immediately after the HC meeting.