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Visit to the Thai Orchid Industry

AVA organized and facilitated a visit to Thailand's orchid industry for the Orchid Business Cluster (OBC) from 16th - 20th of August 2010. The group, consisting of 27 orchid industry participants and 2 AVA officers, made a courtesy call to the Thailand Department of Agriculture, and visited four orchid farms and a flower trading market. To help provide ideas for the future strategic directions of the Singapore orchid industry, the participants were introduced to the technologies and management practices employed by their Thai counterparts. Dialogue helped to identify and facilitate potential collaborations between the Singaporean and Thai growers / exporters. This included a number of fruitful discussions and business negotiations on the numerous new orchid varieties available for potential joint ventures.

Orchid Industry Seminar 2010

AVA and the Orchid Business Cluster (OBC), established in May 2003 to strengthen Singapore's orchid industry and lead them through future trade challenges, co-organized the Orchid Industry Seminar at the Horticulture Services Centre on 1st Oct 2010.

The Employment and Employability Institute presented details on funding areas under their Inclusive Growth Programme that can be used to help improve business operations, and worker skills and productivity. AVA also presented the visit by the OBC to the Thai orchid industry.

Other topics presented covered:

- 1) Potential breeding trends and areas of R&D for the development of new orchid hybrids and for improving orchid farm productivity, all of which have the possibility for leading to new business plans.
- 2) The concept of vertical orchid cultivation, and the introduction of several genera of cut-flower and potted epiphytic orchids suitable for usage and further breeding.
- 3) Possible uses of specific terrestrial orchids, and the cause of their under-utilization by the landscape industry.
- 4) Development and marketing *in-vitro* miniature flowering orchids as gifts and souvenirs for the tourist industry.

Feedback on the Seminar was positive and many participants

were interested in following up on the various topics. The industry also looks forward to possible trips to Taiwan and Israel to study their technological developments in cultivation and pest control, and to source for new orchid plants. All in all, the Seminar enabled networking and dialogue between AVA and the orchid industry, and may help rejuvenate and inject vibrancy into the industry. As such, AVA will continue to work with OBC to organize activities that can help enhance Singapore's position in the world orchid trade.

Nurseries under the Malaysian Phytosanitary Certification Assurance (MPCA) Scheme

As part of our continual efforts for the offshore accreditation of nurseries from our major suppliers, AVA and the Department of Agriculture (DOA), Malaysia, have reviewed an arrangement whereby Malaysian nurseries accredited under the Malaysian Phytosanitary Certification Assurance (MPCA) Scheme are granted fast track clearance and reduced post entry inspections for Singapore bound consignments of aquatic and ornamental plants (inclusive of orchids, turf grasses and cut foliage). This has resulted in cost savings for both the exporters and importers through the import of better quality plants, the offshore treatment of plants, and reduced inspection frequency.

Under the MPCA scheme, both AVA and DOA also conduct joint

yearly audits on selected nurseries to ensure compliance with phytosanitary requirements. There are about 70 nurseries under the MPCA Scheme since its inception in 2005. For a list of these nurseries, please E-mail to AVA_Phytosanitary@ava.gov.sg.

Revised Terms and Conditions of the Assurance Certification Scheme (ACS)

The Assurance Certification Scheme (ACS) is a voluntary scheme offered by the AVA to all companies that regularly export plants, cut flowers and plant products. Companies under the scheme are accredited by AVA to conduct phytosanitary activities on exported commodities. Members of the scheme follow prescribed requirements set by AVA and are subjected to regular inspections or audits by AVA.

To further improve on the scheme and to comply to rising phytosanitary requirements and measures imposed by importing countries, AVA has revised the terms and conditions of the scheme to better address the non-compliances detected during audits and the increasing number of pests detected by foreign countries. Categorization and sanctioning of the non-compliances have been tightened, and the evaluation of certified inspectors through regular training and proficiency testing were also emphasized.

ACS members were informed of the revised scheme requirements at a dialogue session on 8th Oct

2010. Members were given a month to give feedback on the changes.

Visit to Taiwan's Inspection and Fumigation Facilities

AVA Officers had visited the inspection and fumigation facility of the Bureau of Animal and Plant Health Inspection and Quarantine - BAPHIQ at Kaohsiung Taiwan on the 1-2 Sept 2010.

The highlight of the visit was the chamber fumigation facility at the Kaohsiung Harbour Station. It is equipped with five stainless steel fumigation chambers, each capable of fumigating a 40 footer container, and is able to manage an average of 15 containers daily. The facility is also equipped with active carbon scrubbers for the removal of methyl bromide gas, and an automated control system for faster and more efficient fumigation.

The visit gave the AVA officers a better understanding of the technical and operational aspects of chamber fumigation and other quarantine facilities, and will help in the future planning of quarantine and inspection facilities.

Vertical Cultivation of Vegetables

Urban Singapore imports most of its vegetables, and the majority of its high-rise dwelling population have little opportunity to grow vegetables. Vertical plantings thus allow vegetables to be grown with minimal space

requirements, and apart from aesthetics, can act as an alternate supply should overseas disruptions occur.

Such systems include:

- 1) Mini-gardens (consisting of stackable, portable, durable, reusable, media containing cone-shaped modular containers), which minimises shading and maximizes the amount of vegetables that can be grown.
- 2) Veggie pipes (consisting of mounted straight and Y-shaped PVC pipes), which minimises shading with pots held with a 45-degree tilt. An installed automated drip irrigation system allow for effortless and cleaner watering and fertilization.
- 3) Vegetable trellises, with potted climbing vegetables growing up cables or trellises. Hand watering and drenching would suffice for the irrigation and fertilization of the vegetables, while misting and foliar feeding is practised to minimise yellowing and wilting.

On a more commercial level, the vegetable factory, a micro-climatically control closed vegetable production system, allows soil-based or hydroponic vegetables to be cultivated on shelves in clean rooms, isolated from contamination and other external factors. Vegetables can be grown under optimal temperature, relative humidity, illumination, air circulation, irrigation, fertilization and CO₂ enhancement. This could increase the number of crop cycles per year, and enable high value non-tropical vegetables to be produced locally.

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The aim of this bulletin is to disseminate horticulture and plant health information to plant growers, exporters and importers in Singapore. If you have any suggestions, comments or enquiries, please contact us at :

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