

AVAvision

AVA, the national food safety and animal and plant health authority

October 2007



Together, Let's Keep Food Safe!

- 2 AVA Successfully Hosted Special SOM-28th AMAF
- 5 AVA Exercises Tighter Rein on Dog Owners
- 8 Powdered Eggs, an Egg-cellent Alternative during Crisis





Above:
AVA extends warm reception to ASEAN
SOM Leaders at the Welcome Dinner

Left:
ASEAN delegates and spouses visiting
AVA's Marine Aquaculture Centre

AVA Successfully Hosted Special SOM-28th AMAF

Attended by 114 delegates comprising senior officials from ASEAN Member Countries, the ASEAN Secretariat and invited organisations such as Southeast Asian Fisheries Development Centre (SEAFDEC) and US-ASEAN Business Council, the Special Senior Officials Meeting of the 28th Meeting of the ASEAN Ministers on Agriculture and Forestry (Special SOM-28th AMAF) was successfully held at the Grand Copthorne Waterfront Singapore, from 31 July to 2 August 2007.

Chaired by CEO, Agri-Food and Veterinary Authority (AVA), Dr Chua Sin Bin, the Meeting agreed to submit the following items for consideration and endorsement at the coming 29th AMAF Meeting, which would be held on 1 November 2007 in Bangkok:

1. *Proposed 99 ASEAN Maximum Residue Limits (MRLs);*
2. *Proposed ASEAN Harmonised Standards for Papaya, Pummelo and butan;*
3. *Draft ASEAN Standards for Live Infectious Bronchitis Vaccine, and Inactivated Infectious Bronchitis Vaccine;*
4. *ASEAN-OIE MOU on Technical Cooperation;*
5. *Protocol to Amend the Agreement for Establishment of the ASEAN Animal Health Trust Fund;*
6. *Project on Training on Antibiotic Residues in Cultured Shrimp Products in ASEAN;*
7. *Terms of Reference of ASEAN Shrimp Alliance;*
8. *Establishment of ASEAN Network on Aquatic Animal Health Centres;*
9. *Letter of Understanding on ASEAN-SEAFDEC Strategic Partnership;*
10. *ASEAN Criteria and Indicators for Sustainable Management of Tropical Forests;*
11. *Monitoring, Assessment and Reporting Format for Sustainable Forest Management in ASEAN;*
12. *ASEAN Guideline for the Implementation of IPF/IFF proposals for Action; and*
13. *Bangkok Declaration on Strengthening Forest Law Enforcement and in ASEAN.*

The Meeting also agreed to submit the Second Phase of the ASEAN Food Security Information System Project for consideration and endorsement at the coming 6th AMAF+3 Meeting on 2 November 2007 in Bangkok.

During the 3-day meeting, the delegates were treated to a welcome dinner at the Sentosa Resort & Spa, viewing of the "Songs of the Sea" show at Siloso Beach, Sentosa, field trip to AVA's Marine Aquaculture Centre at St John's Island, and a farewell dinner at the Jurong BirdPark. A half-day programme which comprised a visit to Sentosa's attractions cum lunch and shopping at VivoCity was also planned for the delegates' spouses.



Moving Hearts, Touching Lives

March 2007 marked the end of a successful three-year home adoption partnership between the Agri-Food and Veterinary Authority (AVA) and the Golden Years Social Day Care Centre. Championed by the Action Group on Community Outreach of AVA's Staff Well-Being Committee (SWC), the home adoption scheme enables staff to reach out to the less privileged and bring them joy and appreciation of nature through the sharing of our skills and knowledge in vegetable and fruit tree growing and ornamental fish keeping and organised visits to farms in AVA's Agrotechnology Parks. This scheme forms the core activity of our Community Outreach programme, along with other fund-raising activities such as AVA's biennial Charity Bazaar for the Straits Times School Pocket Fund and the Annual President's Challenge Heart Bus.

In seeking a new charity to adopt, the SWC shortlisted the Kampong Senang Charity & Education Foundation from a list of 19 Non-Profit Organisations (NPOs) provided by the National Volunteer & Philanthropy Centre (NVPC) as its services cover a wide range of age groups, from the elderly, youths to young children.

To commemorate the start of this new partnership, AVA organised an adoption ceremony at the Kampong Senang Activity Centre on 2 May 2007. Following a short briefing of our organisation and the proposed future activities, the residents soon warmed up to our 14 volunteers through a rousing game of Bingo. In conjunction with the Centre's involvement in Harmony in Action : Project Million Lotus, the residents, under the guidance of a Japanese origami expert and help of the volunteers, folded paper lotuses which were used for an art installation at Ngee Ann City Civic Plaza on Saturday, 26 May 2007. The Centre also took the opportunity to celebrate Mother's Day with a special song item. As a token of appreciation of their care and love, the children at the day-care centre presented staff and residents with hand-made flowers. The day concluded with a delicious organic lunch sponsored by AVA.



Celebrating Mother's Day with staff and residents of the Home

In recognition of our heartwarming contributions and active community outreach efforts, AVA was accorded the SHARE Gold Award, 2007 and the 5-Year Outstanding SHARE Award during the Community Chest Awards Presentations held in September and October 2007.

Top left: Bringing joy and smiles to residents through a simple game of Bingo

Top right: AVA staff helping residents fold paper lotuses



INKredible Feat!

We did it again! For the second time in a row, the Agri-Food and Veterinary Authority (AVA) bagged the coveted Readers' Choice Award from the Singapore Press Holding's (SPH's) INK Awards which recognises creative print advertising developed in Singapore.

The series of advertisements themed "Don't Get Pets on Impulse" were developed by Graphikate for AVA's Responsible Pet Ownership campaign 2007. The ads captivated the attention of newspaper readers and received the greatest number of sms and online votes.

Heartened by the success of its advertising campaign, AVA hopes that its responsible pet ownership messages have created INK-delible INK-pacts in the hearts of Singaporeans.



Agri-tech Farms Can Accept Workers from Wider Sources

The Agri-Food and Veterinary Authority (AVA) and the Ministry of Manpower (MOM) jointly launched the Revised Work Permit Scheme for the Agritech Sector at a briefing session conducted on 28 June 2007. Held at the MND Auditorium, 128 farmers and 17 manpower recruiters were informed of the revised scheme during the session.

Recognising the difficulties faced by the agritech industry in recruiting local and Malaysian workers, MOM and AVA worked out a scheme to allow agritech farms to recruit Work Permit Holders from a wider range of sources which include:

- **Traditional Source (TS) - Malaysia**
- **North Asian Sources (NAS) - South Korea, Hong Kong, Macau, Taiwan**
- **Non-Traditional Sources (NTS) - Bangladesh, India, Myanmar, Pakistan, Philippines, PRC, Sri Lanka**

All AVA licensed farms that fulfil the following criteria can apply for inclusion into the scheme :

- **Farms with good farm management practices**
- **Farms employing modern farming technology**
- **Farms where farming processes are automated where possible**
- **Farms that maintain a high level of productivity and positive annual turnover**
- **Farms will sign a legal undertaking to provide proper accommodation for workers**

Criteria for Foreign Workers

- **Foreign Workers should be below the age of 50**
- **Workers are strictly allowed to only work in the field of farming jobs as described in the Work Permit card**
- **Any other criteria as required by MOM for the employment of foreign workers**

The participating farm will undertake the responsibility of deploying and managing the NTS workers with regard to their salaries, housing and repatriation. MOM retains its right to withdraw such privileges from farms found committing work permit offences.



CEO, AVA, Dr Chua Sin Bin delivering the opening address at the briefing session



Concerned farmers raising queries during the Q&A session



AVA Exercises Tighter Rein on Dog Owners

To avoid being fined for keeping unlicensed dogs, many dog owners rushed to have their dogs licensed since the media release on new Dog Licensing and Control Rules was made on 6 August 2007. The Agri-Food and Veterinary Authority (AVA) received more than 300 applications daily (on-site at the Centre for Animal Welfare and Control and online at www.ava.gov.sg).

The new Animals and Birds (Dog Licensing and Control) Rules, which are effective from 1 September 2007, aims to better manage Singapore's dog population, instil responsible pet ownership and discourage pet abandonment.

Mandatory Microchipping

All dogs licensed from 1 September 2007 are required to be microchipped and the dog owners must submit documentary proof from a veterinarian to show that their dogs have been microchipped. Microchipping is an effective and permanent identification system for traceability and is especially useful in the event of a rabies outbreak and helps trace lost dogs to their owners.

New Dog Licence Fees

Under the new Rules, the licence fee for all unsterilised dogs (both male and female) has been standardised at \$70. The licence fee for sterilised dogs is \$14. To encourage early licensing of dogs, owners can license their dogs that are up to 5 months of age at a reduced rate of \$14 a year, even if the dogs are not sterilised. Dogs not sterilised before the expiry date of their dog licence are subject to a licence fee of \$70, payable at the time of licence renewal. A group licence fee, ranging from \$650 to \$3,500 per annum has also been introduced for dogs kept in registered farms for breeding, boarding and training.

Hefty Fines

Higher penalties of up to \$5,000 await owners who keep unlicensed dogs, allow their dogs to stray or do not muzzle specific breeds of dogs that are required to be muzzled in a public place (eg, the Rottweiler or Mastiff).

Instilling Responsible Pet Ownership

Under the new Rules, a dog licence is not transferable. This serves to commit the new owner to his responsibility of ensuring that the dog he owns is licensed. Furthermore, dog owners are required to inform AVA within 28 days in the event of the loss or death of their dog, or a change in his address.

Dogs Licensed at Point of Sale

Pet shops and dog breeding farms can now help buyers license their dogs at the point of sale. This licence fee would be borne by the new owner.

AVA will continue to review its policies and regulations to sustain its efforts in promoting responsible pet ownership in Singapore.



Enhanced ARAHIS Strengthens ASEAN's Animal Health Management and Biosecurity

Since June 2006, the Agri-Food and Veterinary Authority (AVA) represented Singapore to take on the role as the first Regional Coordinator for the ASEAN Regional Animal Health Information System (ARAHIS).

Functions and Features

The ARAHIS is a web-based regional animal health system developed as a component of the Strengthening Animal Health Management and Biosecurity in ASEAN (SAHMBA) Project, which forms part of the Australia-ASEAN Development Cooperation Program (AADCP) funded by Australian Agency for International Development (AusAID). Developed over a 2-year period, the system was handed to ASEAN in June 2006 during the handover workshop in Singapore.

The ARAHIS underpins regional surveillance by providing a high

quality regional standard for collecting and collating consistent and comprehensive data on four regional priority Transboundary Animal Diseases (TADs) to help manage national and regional animal health programmes and for fulfilling international reporting obligations to the World Animal Health Organisation (OIE). The four priority diseases are: the Foot and Mouth Disease (FMD), Classical Swine Fever (CSF), Highly Pathogenic Avian Influenza (HPAI) and Newcastle Disease (ND).

Used exclusively by ASEAN member countries, the ARAHIS allows open discussion on animal disease issues and rapid dissemination of reports on disease outbreaks in the region, so that other countries can take necessary measures.

Integration and Enhancement

After a year of implementation, it became apparent that there



exist opportunities to leverage on the value of ARAHIS through integration with other regional and global resources such as Animal Health and Production Information System for ASEAN – AHPISA, Southeast Asia Foot and Mouth Disease Campaign – SEAFMD, Office International Des Epizooties (OIE) Tokyo, as well as OIE Paris. Member countries also recognised the need to develop user manuals for the system and increase the skills of regional coordinators in system design and modification. With these in mind, an extension of the project to further enhance ARAHIS was approved by AADCP and AusVET Animal Health Services Pty Ltd (AusVET) will continue with the extension.

The first workshop of the project extension was held in Singapore from 6 to 10 August 2007. The National Coordinators of the 10 ASEAN member countries, ASEAN Secretariat, FAO and SEAFMD attended the workshop. The objectives of the workshop were:

1. To consolidate and expand the ASEAN Regional Animal Health Information System (ARAHIS)

2. To develop national user manuals for ARAHIS
3. To extend software data transfer and sharing systems, especially to integrate emergency disease reporting within ARAHIS to allow transfer of data to World Animal Health Information System (OIE WAHIS).
4. To effectively and efficiently plan, coordinate and manage project extension activities

The workshop was conducted in two groups. One group underwent training on the use and development of the user manual. The second group learnt the languages used in administering the system and also to edit the manuals (both for users and administrators).

The next workshop is scheduled in March 2008 in Bangkok. In the interim, AusVet and the National Coordinators will continue to finalise the manual and develop the system further. The enhanced system is targeted for completion prior to the workshop in Bangkok.

AVA Represents Singapore at the 14th Meeting of the Conference of the Parties to CITES (COPI4)

Many wild animals and plants are used and traded daily as food, pets, medicines, tourist souvenirs, furniture and fashion. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES – www.cites.org) is an international agreement, which came into effect in 1975 to ensure that international trade does not threaten wildlife species with extinction. There are currently 171 Parties to the Convention and they regulate the trade in CITES species listed in the CITES Appendices I, II and III through a system of permits. Parties meet every 3 years at a Conference to review the implementation of the Convention.

Officers from the Agri-Food and Veterinary Authority (AVA) represented Singapore at the 14th Meeting of the Conference of the Parties to CITES (COPI4) held from 3-15 June 2007 at the World Forum Convention Centre (WFCC) in the Hague, Netherlands. The Conference was organised by the Ministry of Agriculture, Nature and Food Quality of the Netherlands and the CITES Secretariat. The 2-week meeting was attended by some 1250 delegates, representing 151 governments, intergovernmental (IGOs) and non-governmental organisations (NGOs).

The meeting discussed 70 agenda items and considered 37 proposals to amend the CITES Appendices. The COPI4 adopted resolutions and decisions on a wide range of issues eg. CITES Strategic Vision 2008-2013, budget for next triennium, sharks, sea cucumbers, elephants, Asian big cats, etc. Several listing proposals were also voted on. At the meeting, approvals



Opening speech by Ms Gerda Verburg, Minister of Agriculture, Nature and Food Quality, the Netherlands

were made to include sawfishes, European eel and slow loris in the Appendixes.

In a high-level Ministerial Roundtable hosted by the Dutch government, Ministers responsible for CITES and their representatives noted CITES' contribution to the prevention of biodiversity loss and sustainable development. They encouraged greater cooperation between CITES and other organisations such as the Food and Agriculture Organization (FAO) and the International Tropical Timber Organization (ITTO) and regional fisheries management organizations (RFMOs) to better manage commercially utilised natural resources.

The Conference provided a good opportunity for all participants to establish or renew contacts and build networks and friendships. The next Conference is set to take place in Qatar in 2010.

Upholding Singapore's Food Safety with Industry and Consumers

The Agri-Food and Veterinary Authority (AVA) kicked off the Food Safety Month on 11 July 2007 with its annual Food Safety Awards Night. Held at the Pan Pacific Hotel, Singapore and officiated by Dr Mohamad Maliki Osman, Parliamentary Secretary for National Development, the event honoured AVA's Food Safety Partners for their efforts in implementing food safety assurance and education programmes. Food manufacturers and importers who have consistently maintained high standards of food safety were recognised during the night.

AVA's Food Safety Partners play an active role in educating consumers on food safety by disseminating food safety tips to consumers through product packaging and publicity materials and events. This year, two additional companies: Golden Glory Food Industries and Seo Eng Joo Frozen Food were accorded the Food Safety Partners status and five current Food Safety Partners, Cold Storage Supermarket, Chop Hup Chong, KSB Distribution, NTUC FairPrice and Thong Siek Food Industries renewed their partnerships with AVA.

Themed "Cook Your Food Well", this year's public education programme places emphasis on the importance of cooking our food properly to avoid food poisoning caused by bacteria that can be found on raw or undercooked food. Proper cooking at high temperatures of at least 74°C kills harmful bacteria and helps safeguard against food poisoning.

Since bacteria grow more easily on meat, poultry, dairy products, eggs and seafood, special attention must be paid on these high-risk foods to ensure that they are thoroughly cooked.

During the Food Safety Month, a series of fringe activities were also organised to bring the Food Safety message to the public. These included: cooking demonstrations and Oscar's (the Food Safety Mascot) tour of supermarkets, libraries and schools.



Guest of Honour, Dr Mohamad Maliki Osman with AVA's Food Safety Partners

We have listed below some food safety tips that consumers can adopt in their daily living:

Cook Meat, Eggs & Seafood Thoroughly:

- Meat should not be pink and juices should run clear. Pay special attention when cooking ground meat, such as hamburger patties, as the meat has a higher chance of exposure to bacteria during mincing. Stuffing for poultry (eg. turkey) should be cooked separately to ensure that both the poultry and the stuffing are properly cooked.
- Cook eggs until the yolk and white are firm.
- Fish should be cooked until the meat is opaque and flakes easily. The shells of fully cooked prawns and lobsters should be red and the flesh opaque. The flesh of fully cooked shellfish should be opaque and firm.

Use a Food Thermometer:

- Use a food thermometer to ensure that food has reached a safe internal temperature of at least 74°C.
- Place the stem of the thermometer in the thickest area of the meat but not in fat or near bone.
- If the cut of meat is an uneven shape, test the temperature in several places to ensure the entire meat is properly cooked.

Barbeque the Right Way:

- Light charcoal well in advance and make sure you use enough charcoal. Wait until the charcoal is glowing hot before you start barbequing.
- Do not rush while barbequing. Turn and move the food regularly around on the barbeque pit to allow the different intensity of heat of the pit to cook the food evenly and thoroughly.
- Do not assume that meat is cooked properly on the inside when meat is charred on the outside. If you have a food thermometer, use it to ensure that food is heated to a safe internal temperature of at least 74°C for 2 minutes.

Together, Let's keep food safe!



Chef Koh Chieng Mun sharing food safety tips and recipes with consumers



CEO, AVA, Dr Chua Sin Bin congratulating Food Safety Partners

Powdered Eggs, an Egg-cellent Alternative during Crisis

Many Singaporeans were affected during the sudden suspension on the import of poultry and eggs from Malaysia in August 2004 due to bird flu. Although egg importers attempted to import eggs from further afield to make up for the shortage, there were just not enough eggs to supply to everyone. Prices of eggs rocketed to as high as 60 cents for one egg then!

Three years have lapsed since this incident and by now, most people would have long forgotten about the crisis. However, with bird flu endemic in this region, there is always a possibility that a similar supply crisis could occur again, and consumers and industry users may have to turn to egg substitutes like powdered and liquid eggs.

To help industry users make an easier switch in times of crisis, the Agri-Food and Veterinary Authority (AVA) has started working with various parties to promote the use of powdered and liquid eggs since August 2006. Pasteurisation and processing would have resulted in some changes in the powdered and liquid eggs' constituents. Users of powdered and liquid eggs would therefore need to familiarise themselves with the handling of these egg substitutes. It is necessary for food manufacturers to refine and modify their recipes to attain the same product consistency and texture that they have previously achieved using shell eggs.

AVA, together with polytechnics, have been developing recipes to promote the use of these egg substitutes among food manufacturers and institutional users in Singapore. In August 2006, a workshop was conducted for noodle makers on making noodles using liquid egg. A separate workshop was conducted in March 2007 to the bakeries and confectioneries on the use of powdered and liquid eggs to make chiffon and sponge cakes. A school has also conducted classes during its home economic programme on the use of powdered egg for preparing egg dishes and cakes. AVA hopes to create greater awareness of the benefits of using egg substitutes, especially powdered egg through all these promotion programmes.



AVA together with a local polytechnic demonstrated the use of liquid eggs during a noodle making workshop

Below are some of the recipes that AVA has developed with Temasek Polytechnic using powder egg that you may wish to try them out for yourselves.

Scramble Eggs with Tomatoes

Ingredients:

- 150g Rehydrated egg
- 2 Tomatoes, peeled and cut into chunks
- 1 stalk Spring onions, chopped
- 1 Tbsp Vegetable oil
- Salt to taste



Method:

1. Heat the oil in a wok over medium heat. When the oil is hot, add the rehydrated egg, cook and stir until the eggs are almost solid. Add the tomatoes, and cook until eggs are firm.
2. Sprinkle with spring onion and season with salt, and serve.

Stir-fried Shrimps with Eggs

Ingredients:

- 150g Rehydrated egg
- 150g Shrimps, peeled and de-veined
- 1 stalk Spring onions, chopped
- 2 Tbsp Vegetable oil



Sauce:

- 1/6 tsp Salt
- 1 Tbsp Water
- 1/2 tsp Corn starch
- Pinch of pepper

Marinade:

- 1 Tbsp Rehydrated egg white (1 tbsp of egg white powder with 7 tbsp of water)
- 1/2 tsp Corn Flour
- Pinch of salt

Method:

1. Mix the marinade with shrimps for 15 minutes. Chop the spring onion and set aside.
2. Heat wok and the oil in medium heat. Fry the shrimps in the wok until just cooked and changes colour (about 1 minutes). Remove and drain on absorbent paper towels.
3. Add in salt, cornstarch and water to the rehydrated egg. Then mix in the prepared shrimps.
4. Heat the wok again. Pour in the egg and shrimps mixture, add in chopped spring onion, and stir fry quickly to mix. Remove from wok onto a platter and serve.

New Regulations Help Safeguard Cockle Consumers' Health

Starting 1 May 2007, the Agri-Food and Veterinary Authority (AVA) only allows seafood importers with licensed cockle processing establishments to import live cockles.

Previously, food service outlets (e.g. hawker stalls, restaurants) would buy live cockles and shuck these at their outlets, for immediate consumption by the customers. Although cockles inherently carry food safety risks, such as Hepatitis A virus, on-site shucking and immediate consumption minimise additional food safety risks being introduced.

However, an increase in demand for cockle meat, rather than whole, live cockles by retail food outlets in recent years has led to the proliferation of illegal shucking activities as there was no food factory set up to carry out shucking of cockles. Most of these were carried out by illegal immigrants under unhygienic conditions in back alleys next to drains or next to toilets in Housing and Development Board (HDB) flats.

The smell coupled with large amounts of processing waste generated, affected the surrounding residents. The waste, comprising largely of cockle shells disposed into rubbish chutes or refuse collection centres of the HDB residential estates created a stench at the rubbish chutes and lifts used to transfer the waste from the residential units to the refuse collection centers.

To curb the problem of illegal shucking of cockles, AVA has implemented the following measures to regulate the import and trade of live cockles:

- Importers without licensed processing (shucking) premises would not be allowed to import live cockles;
- Licensed shucking premises must comply with AVA's licensing conditions and adhere to good manufacturing practices (GMPs);



- Imported cockle consignments must be sent directly to the licensed premises;
- Importers must keep proper sales records and these records are subject to checks by AVA officers;
- AVA will carry out random inspection of consignments at the licensed premises.

There are currently five licensed cockle shucking establishments located in the Woodlands, Aljunied and Bedok areas. AVA-licensed cockle shucking establishments are only allowed to distribute live cockles directly to retail or food service outlets and are prohibited from supplying them to any distribution centres and wholesale markets, including Jurong and Senoko Fish Wholesale Markets, for further sale to their customers.

The implementation of these additional requirements on cockle importers has significantly reduced illegal cockle shucking. AVA will continue to safeguard the health of cockle consumers in Singapore by ensuring that live cockles are shucked at licensed premises.

Exploring West Java for Suitable Import of Produce

The Agri-Food and Veterinary Authority (AVA), together with the Embassy of the Republic of Indonesia in Singapore and the Singapore Fruits and Vegetables Importers & Exporters Association (SFVIEA), co-organised a trade visit to Bogor and Bandung, West Java, from 5 to 8 August 2007 for interested Singapore vegetable and fruit importers/exporters/farmers, and seed suppliers.

15 participants from a wide segment of the industry, including members of the Vegetables and Fruits Business Cluster and SFVIEA, attended the trip together with officials from AVA and

the Embassy of the Republic of Indonesia in Singapore.

Bogor is an important centre for botanical research in food crops like tea and cassava. Situated at a higher altitude of 800-1200 metres above sea level, Bandung is one of the major vegetable producing areas in West Java, with much land utilised for the growing of vegetables, all year round. Given its cooler climate, a large variety of vegetables such as french bean, caixin, capsicum, water cress, spring onions, green spinach, red spinach, chayote, corn, potato, and tomato are produced here.

The Singapore delegation attended the “The Forum for Coordination and Improvement on Export of Agro Produce from West Java” organised by the Office of Agro-Industry and Trade of West Java Province and had the opportunity to meet up with key vegetable and fruit industry players in a business networking session and exhibition of agro produce. Visits were made to vegetable farms producing mushroom, water cress, capsicum and organic vegetables in addition to a vegetable processing establishment with packing and cold room facilities to handle daily export to Singapore. The group also visited a well-established, HACCP-certified company in Bogor producing flowers and vegetables for export. Some farms such as those producing capsicum were modern and well maintained with consistent production of quality crops.

This trip provided the Singaporean traders an opportunity to meet with both the Indonesian government officials and specific, key private sector representatives and exchange informal views and information on issues related to the possibility of importing suitable produce from Bandung and/or Bogor.

Spurring Regional Growth in TCM with GAP Scheme

Under a Memorandum of Cooperation (MOC) signed on 10 August 2007, Agrifood Technologies Pte Ltd (ATP) and Eu Yan Sang International Ltd (EYSI) will jointly develop and implement a Good Agronomic Practices (GAP) Certification and Audit Scheme for Herbs.

Filling the gap of a lack in industry standards for the regulation of the quality and safety of Chinese herbs sold, this Scheme, will serve as a model for the Traditional Chinese Medicine (TCM) industry in Singapore to self-regulate the sale of herbs locally and in the region.

The MOC was signed by Chairman, ATP, Mr John Lim and Group Chief Executive Officer, EYSI, Mr Richard Eu Yee Ming and witnessed by General Manager, ATP, Dr Philip Chew and President, EYSI, Mr Will Hoon Wee Teng. CEO, Agri-Food and Veterinary Authority of Singapore (AVA), Dr Chua Sin Bin, and Directors of ATP, Dr Ngiam Tong Tau and Mr Robert Lee were also present at the signing ceremony.

Under the Good Agronomic Practices (GAP) Scheme for Herbs, an in-house GAP for Herbs (GAP-HERBs) Standards will also be developed for EYSI, with reference to international food safety guidelines. These standards will form the basis for auditing and certifying source farms that are supplying herbs to EYSI.

With the increased consumption of traditional Chinese herbs as a health supplement by Asians as well as Westerners, the initiative to develop in-house GAP Standards for Chinese herbs will help assure safe and quality Chinese herbs for local and regional consumers. Standards and certification for the proper and safe cultivation of Chinese herbs will help to spur a growth for the traditional Chinese medicine industry in this region.



Participants at an organic farm and viewing capsicums



Top: Mr Richard Eu and Mr John Lim exchanging of copies of MOC signed

Bottom: Attendees at MOC signing ceremony (from left to right): Dr Philip Chew (General Manager, ATP), Mr Clifford Eu (Managing Director, EYSI), Mr Will Hoon (President, EYSI), Dr Ngiam Tong Tau (Director, ATP), Dr Patrick Loh (Senior Vice-President, Technology, EYSI), Mr Richard Eu (Group Chief Executive Officer, EYSI), Mr John Lim (Chairman, ATP), Mr Robert Lee (Director, ATP); Dr Chua Sin Bin (CEO, AVA), Ms Dawn Lee, Vice-President, Product Marketing, EYSI); and Mr Leslie Mah (Executive Director, EYSI)

AVA Hosts Study Visit on Post-Harvest Technology of Fruits and Vegetables for Myanmar Participants

The Agri-Food and Veterinary Authority (AVA) hosted a study visit and Workshop on Post-Harvest Technology of Fruits and Vegetables from 9-13 July 2007 at its Post-Harvest Division in Lim Chu Kang for six government and private sector participants from Myanmar.

Sponsored by the Ministry of Foreign Affairs (MFA), the workshop enabled participants to acquire necessary concepts, knowledge and application through lectures, hands-on practical lessons and field visits. Various topics in post-harvest technology of fruits and vegetables such as cold chain management of vegetables, biology and physiology of fruits and vegetables and the harvest of leafy vegetables in a farm were covered in the programme. Visits were made to Pasir Panjang Wholesale Centre (PPWC), Veterinary Public Health Centre and vegetable farms. Participants expressed that they have benefited from the sharing of experiences and networking through the workshop and have requested AVA and MFA to continue organising more of such programmes in the future.



Above:
AVA plays host to Myanmar participants during the study visit



Left:
AVA trainer with Myanmar participant at a practical session

VPHL Trains ASEAN Scientists in Pesticide Residue Analysis

The Veterinary Public Health Laboratory (VPHL) conducted its 2nd regional training for pesticide residue testing in food on 16 – 20 July 2007. Designated as the ASEAN Reference Laboratory (ARL) for pesticide residue analysis in food in July 2004, the VPHL conducted its 1st inaugural regional training course in September 2005.

This 5-day training course saw the participation of 19 senior pesticide residue scientists from 9 ASEAN countries. Two EU trainers were invited to deliver lectures and conduct practical sessions on pesticide residue analysis. The topics covered included: quality control procedures, residues enforcement regulations, laboratory management, ISO standard on the competency of testing laboratory and participation in international proficiency tests.

The training course provided a platform for ASEAN scientists to work together and exchange information on strategic issues in food analysis and offered participants hands-on practical experience in residue analysis. The participants were also



taught how to gain access to international portals on pesticide residue analysis and exchange technical information between laboratories on method validation data to enhance their testing competency. The participants found the course very useful and comprehensive as it covered a wide range of topics from sample preparation to instrumental analysis.

This training course marks yet another milestone for VPHL elevating its status as a regional training hub and information centre for pesticide residue analysis. VPHL, with its excellent facilities and recognised expertise in food testing, will continue to act as a focal point for analytical testing collaboration and sharing technical expertise in ASEAN and beyond.



ATP Conducts Ornamental Fish Packing Technology Training in India

Agrifood Technologies Pte Ltd (ATP), in partnership with trainers from the Singapore ornamental fish industry, successfully conducted a training course on ornamental fish packing technology, from 18 to 23 June 2007 in India for 28 participants comprising Indian ornamental fish exporters/breeders, academics and government officials. Marine Products Export Development Authority (MPEDA), India, appointed ATP as the consultants for this course.

The initiative to extend the training to India came from the Agri-Food and Veterinary Authority's (AVA's) Ornamental Fish Business Cluster, chaired by Dr Kenny Yap, and was endorsed by the Singapore Aquarium Fish Exporters' Association (SAFEA); and the Singapore Tropical Aquarium Fish Breeders' Association (STAFBA). The Cluster and the Associations felt that the course would allow the Singapore ornamental fish industry valuable insight into the status and capabilities of the Indian ornamental fish industry as India is currently a major exporter of Indian indigenous species of ornamental fish to Singapore.

Through a series of lectures and practical lessons, basic know-how in ornamental fish packing technology was taught to the participants. MPEDA's feedback indicated that participants have found the course beneficial. The provision of this training by ATP to India is one of the first steps towards fulfilling AVA's Ornamental Fish Business Cluster's vision to develop Singapore into a knowledge hub for ornamental fish culture in the region. This is essential in creating a vibrant ornamental fish industry, which will serve to strengthen Singapore's position as the top ornamental fish export centre in a highly competitive international arena.



Trainer and participants having a splashing good time during a practical session

Maximising the Marketing Potential of Marine Tilapia



Tilapia (*Oreochromis* spp), also known as the "Aquatic Chicken", is an important aquaculture species. As the tilapia is omnivorous in nature, tolerant of high stocking densities and grows fast, it is among the easiest and most profitable fish species to farm. The fish is mostly grown in ponds, cages and rice fields. Although it is a freshwater species, tilapia can also tolerate brackish water conditions. In Singapore, the aquaculture production for freshwater tilapia in 2006 was 4.5 metric tonnes and 15.0 metric tonnes for brackishwater land-based culture.

One of the problems faced in marketing freshwater tilapia is its "off-flavour". Tilapia's flesh carries a muddy odour and flavour. To reduce this bad flavour, the fish can be held in clean and continually flowing water for a week before harvesting. However, this is too costly and impractical in land-scarce Singapore. A more viable option was to culture tilapia under marine conditions.

The Agri-Food and Veterinary Authority's (AVA's) Marine Aquaculture Branch, together with a local coastal fish farm in the Lim Chu Kang fish farming area of the West Johor Strait, cultured and reproduced tilapia under near marine conditions. Some 20 metric tones of tilapia were produced under these conditions in 2006.

A hatchery was set up at the floating farm, where tilapia broodstocks were kept in freshwater floating tanks for easy retrieval during reproduction. The fry were collected from the broodstock tanks and acclimatised to marine conditions in salinity-controlled water in floating tanks. Upon reaching the fingerling stage, the fish are stocked in long floating netcages. These cages are aligned with the water current and the fish are stocked in one of the sides of the long netcage. The remaining unused part of the long netcage is kept above water to alternate with the first half when the latter becomes clogged and requires cleaning. The fish is grown until it reaches a harvestable size of 500g and above.

A typical culture cycle takes around 10 to 12 months with an initial stocking of 50,000 fingerlings per netcage. At harvest, each netcage yields about 22 tonnes or about 37,000 fish. The farm now markets a minimum of 300kg of live market-sized marine tilapia each week to the local market. There is a huge marketing potential for this fish as its meat is white, flaky and fine tasting and most importantly, it is devoid of the muddy off-flavour, common in freshwater tilapia.

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