

# AVA

APRIL 2005

The authority for food safety and animal and plant health

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The Riau farmers, agriculture officers and AVA staff take a break for a group shot while on tour at the AVA Horticulture Branch.

## Rewarding tour for Riau farmers

*Riau farmers get to visit Singapore's vegetable farms, distribution and wholesale centres and retail outlets as part of a study tour.*

**R**iau farmers who consistently produced high quality harvest for export to Singapore under the Riau-Singapore Vegetable Project, were recently rewarded with a study tour to Singapore. Organised by AVA, the study tour was funded and supported by the Riau Provincial Government.

Held from 15 to 18 December 2004, the study tour focused on the marketing chain of fresh produce in Singapore and saw the participation of 6 Riau farmers and 13 Dinas Tanaman Pangan Propinsi Riau (DTPR) agriculture officers. Aimed to provide the Riau farmers and officers an insight into vegetable production in Singapore's Agrotechnology Parks, the processes and logistics involved in distributing and retailing vegetables, it also highlighted the vegetable preferences of the Singapore market.

Included in the tour itinerary were visits to various vegetable farms, distribution and wholesale centres and retail outlets, such as Oh Chin Huat's Hydroponic Farm, Jurong Fishing Port, Pasir Panjang Wholesale Centre, NTUC Fresh Food Distribution Centre, AVA Horticultural Branch facility and the Best Food Asia Exhibition Fair. AVA, in collaboration with the DTPR, had set up a display of Riau vegetables at the Exhibition Fair to showcase

the technology transfer by AVA to Riau as well as to promote Riau agriculture produce to consumers.

In addition to garnering a better understanding of the economies of scale required in the export of fresh produce, the study tour participants also got first hand information on the numerous opportunities to market Riau's fresh produce in Singapore. Greeting each outing with enthusiasm and interest, the participants remarked that they found the visits very useful and were grateful for the numerous opportunities to share insights with the Singapore farmers, distributors and retailers.

The study tour concluded with a dialogue session between the participants, AVA, DTPR and Foodbex Global Pte Ltd. Foodbex Global Pte Ltd is the parent company of PT Foodbex Indonesia, which has been decreed by the Governor of Riau Province to manage the Processing Centre in Pekanbaru that processes Riau vegetables for export to Singapore. During the dialogue session, the Riau farmers had the opportunity to share their experiences and clarify their uncertainties to help smoothen the transition towards the commercialisation of the Riau-Singapore Vegetable Project. It is ultimately hoped that the participants would effectively apply the skills and information learnt to improve upon the production and export of wholesome fresh produce for the Singapore market.

# Eight steps to fight bird flu

**T**he Agri-Food and Veterinary Authority played host to the first meeting of the ASEAN Highly Pathogenic Avian Influenza (HPAI) Taskforce held from 20-21 December 2004 in Singapore. Attended by delegates from ASEAN member countries and representatives from the People's Republic of China, Republic of Korea, the Netherlands, Food and Agriculture Organisation of the United Nations, World Organisation for Animal Health and World Health Organisation, the meeting aimed to coordinate activities for the prevention and control of HPAI in the region.

In addition to exchanging information and experiences on the disease situation and control measures in their respective countries,

the Taskforce also came up with an action plan focusing on eight measures. These measures include disease surveillance and alert systems for prompt disease detection and reporting; effective containment measures such as quarantine and border control; and emergency preparedness plans to enable rapid response to new outbreaks.

Each of the eight tasks have been assigned to an ASEAN member country. Singapore has been assigned the task of coordinating the sharing of information on a regional epidemiologic study to assist in decision making and planning for the region. The respective workplans proposed by the coordinating countries will be discussed at the next meeting in Thailand in May 2005.



*Delegates at the first meeting of the ASEAN Highly Pathogenic Avian Influenza Taskforce exchanged information on the bird flu disease situation and control measures in their respective countries.*

## Dishing out online services

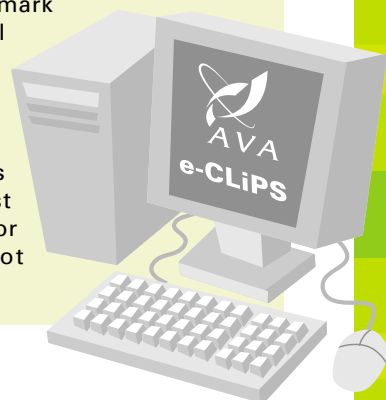
**B**e it food traders or plant exporters, customers can soon expect a veritable feast from AVA for online services. In line with the e-Government's vision to "better serve the nation in the digital economy", AVA will be launching an integrated electronic system, known as the electronic Certificates, Licences & Permits System (or e-CLiPS) to facilitate the issuance of licences, permits and health certificates online.

In carrying out its regulatory role of ensuring a resilient supply of safe food and safeguarding the health of animals and plants, as well as in facilitating agri-trade for Singapore, AVA issues permits, licences and certificates. The bulk of these processes are currently carried out via face-to-face dealings or via fax or post.

The e-CLiPS will enable AVA to provide its customers with services that are accessible, convenient and efficient. The public can apply, renew, make payment or enquire the status of

licences, permits and health certificates online, anytime and anywhere. For licences, e-CLiPS will be integrated with the Government-wide Online Business Licensing Service (OBLS) which is a one-stop portal for business start-ups to apply for relevant licences issued by various Government agencies.

Also in the pipeline are plans to enhance this service by offering customers the flexibility to print selected permits and certificates themselves. To be achieved by using optical watermark technology, it will eliminate the need for customers to visit AVA counters for collection of certificates/permits or for AVA to post these documents for those who cannot collect them.



# Charity begins at work

*The Golden Years Social Day Care Centre is adopted by AVA as part of its community outreach programme.*

The dedication of AVA's officers goes beyond offering the best possible service to the organisation's customers; it even extends to demonstrating a wider sense of social responsibility. The active monetary contribution by a significant number of staff continues to garner AVA the SHARE Programme Award. To top this, AVA adopted the Golden Years Social Day Care Centre as part of its community outreach programme last year.

Steered by a committee comprising a cross-section of staff volunteers and strongly supported by management, AVA officers have been generous in donating not only money, but also time and effort to organise activities for the residents of the Centre. Included in the list of monthly activities organised by AVA for the residents of the home are a pet therapy session, fish tank set-up, gardening and farm tours.

## In touch with pets



A pet therapy and a photo shoot session were organised for the residents in June 2004. The residents were delighted with the company of the animals such as dogs, cats and rabbits. Each received a photographic memento of the occasion.

## Setting up a fishy gift

July 2004 saw the set-up of a freshwater ornamental fish tank by the residents and AVA volunteers. The therapeutic effect of fishes was appreciated by the residents who expressed delight with their new aquatic pets.

To ensure that the tank is well maintained, the residents and staff from the Centre were also taught basic fish tank maintenance skills.

*A bloom-filled break at Orchidville for the residents of the Day Care Centre accompanied by AVA volunteers.*



## Handicraft sale for charity



The month of August 2004 saw AVA volunteers man a charity booth for the Centre at the Community Appreciation Day held at MND building. A total of \$772.20 was collected through sales and donations. Items sold at the booth included handicrafts made by the residents of the Centre.

## Green thumbs to the rescue

Putting their expertise in horticulture to good use, AVA staff transformed the garden plot outside the Day Care Centre into a herb and vegetable garden in November 2004. Residents were also given a talk on the types and uses of herbs.

## A mix of goats and orchids



It was an excited bunch that went on farm tours to Orchidville Pte Ltd and Hay Dairies in September 2004 and March 2005, respectively. From admiring the myriad orchids to getting up close to the goats during the milking process, the residents were definitely thrilled by the experience.

# Oscar takes to the aisles

*Oscar, AVA's food safety mascot, hits the supermarket trail to spread the food safety message.*

Spreading the food safety message along with good cheer was Oscar during the festive season. From supermarket tours to making appearances at exhibitions and events, Oscar used this period of feast and festivities to bring home the message of keeping cooked and raw food separate.

## Connecting with heartlanders

This festive season saw Oscar, once again, getting up close and personal with customers at popular supermarkets. Oscar's tour from 27 November 2004 to 30 January 2005 saw him greeting shoppers with balloons, brochures and pocket calendars at 36 supermarkets to promote the food safety message.



*Proving a hit with the kids is Oscar during his festive supermarket tour to spread the food safety message.*

## Food safety bites



*Spreading the food safety message, to keep raw and cooked food separate, is Oscar at the Asia Pacific Food Expo.*

Amidst the milling crowd in search of bargains at the Asia Pacific Food Expo on 6 to 7 November 2004 and the Best Food Asia 2004 held from 16 to 20 December 2004 was Oscar giving tips on food safety. At both events held at the Singapore Expo, there was distribution of pocket and table calendars, brochures and balloons to kids who clamoured to hug the cuddly mascot and take photos. There was also a food safety cooking demonstration at the Best Food Asia event.

## An apple a day



*Waving to the visitors at the HPB Fruit and Vegetable Day event is Oscar while his helper distributes balloons and food safety pocket calendars.*

It was a potent mix of health and food safety when AVA's Oscar participated in the Health Promotion Board's Fruit and Vegetable Day held on 23 January 2005. Welcoming over 10,000 visitors at the Pasir Panjang Wholesale Centre Auction Hall during the pre-Chinese New Year period, the event was a roaring success. Popular with the people who actually purchase and prepare the food at home, the event proved an apt venue to go out with the food safety message, with greater emphasis on handling fruit and vegetable.



# Select Food Carefully!

As consumers, food safety begins when we do our shopping. Careful selection of food can reduce the risk of food poisoning and goes a long way to protect the health of you and your family.

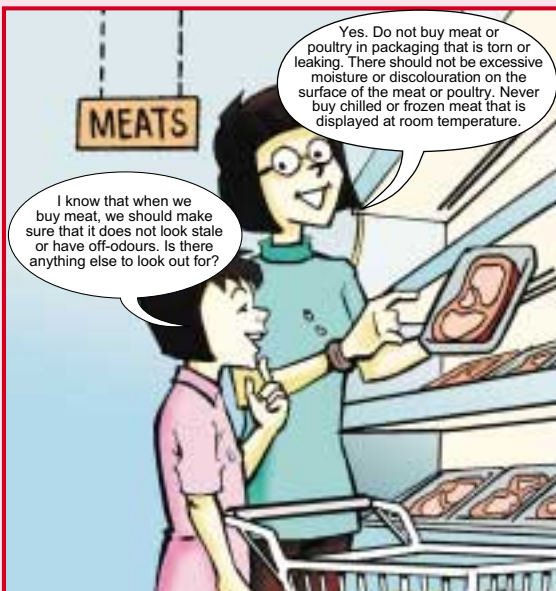
Together, let's keep food safe!



1 Selecting canned and packaged food



2 Selecting fruits & vegetables



3 Selecting meat & poultry



4 Selecting seafood

## Your Cut & Keep Guide on Selecting Food Carefully

Exercising care in food selection can reduce the risk of food poisoning. Here are some tips on selecting food:

### Canned, bottled and packaged food

- Do not choose canned food that is rusty, badly dented or swollen.
- Do not buy the packaged food if the packaging is damaged or opened.
- Do not buy mouldy dried food as they may contain harmful mycotoxins.
- Do not buy bottled goods with broken seals.

### Fruits and vegetables

- Do not buy fruits and vegetables that are bruised, blemished, shriveled or mouldy.

### Meat and poultry

- Make sure the meat does not appear stale, discoloured or have off-odours.
- Buy only meat or poultry that has been kept under the right refrigerated conditions.
- For pre-packed meat or poultry, do not buy those in packaging that is leaking or torn.
- Do not buy meat or poultry with excessive moisture on the surface. It shows that the food item has been mishandled.

### Seafood

- Buy seafood that is properly refrigerated or iced.
- Choose fish that has a bright, shiny appearance with scales that are intact. The

eyes of the fish should be bright, clear and full and the gills should be bright red to liver red in colour and free from slime.

- Buy prawns that are firm and have shells that are not slippery. There should not be any black spots or discolouration on the shells.
- Live crabs and lobsters should exhibit leg movements. The tails of live lobsters should curl under the body when you pick them up.
- The shells of live clams, oysters, or mussels should close tightly when tapped. Do not buy shellfish with gaping shells as this shows that they are dead.

### Eggs

- Buy eggs that are clean.
- Avoid cracked eggs as bacteria can enter eggs through the cracks.

### Dairy Products

- Check for the expiry dates on liquid milk, cultured milk, cream and pasteurised milk.
- Avoid packages that are torn or leaking.
- Only buy frozen or chilled dairy products that are properly displayed in the freezers or chillers.
- Select dairy products that have been stored below the load line of the freezer or chiller. The load line indicates the level up to which food may be stored and kept at the correct temperature.

## Message from Oscar, our Food Safety Mascot

AVA has chosen the otter to be Singapore's national food safety mascot. He has been named Oscar.

The otter is an animal with good food safety habits and enjoys a wide variety of food.

Through Oscar, AVA hopes to bring the food safety message closer to your heart.

For consumer tips on food safety, visit [www.ava.gov.sg](http://www.ava.gov.sg)



# Flora find in Vietnam visit



The trade mission to Vietnam revealed the potential business opportunities for vegetable and fruit exports to Singapore from Lamdong Province.

*Singapore supermarket shelves may soon be stocked with more fruits and vegetables from Vietnam.*

**P**roviding a valuable platform for Singapore traders to size up the fruit and vegetable business opportunities in Vietnam was the food sourcing mission to the country from 24 September to 1 October 2004. It was organised by the International Trade Institute of Singapore (ITIS), a subsidiary of International Enterprise Singapore (IES), and the Singapore Fruits and Vegetables Importers and Exporters Association (SFVIEA), and supported by AVA.

During the visit, mission members toured vegetable, fruit and flower farms in the Tien Giang Province and Lamdong Province, and some food processing plants in Ho Chi Minh City. Seminars and business matching sessions held in Ho Chi Minh City and Dalat provided ample opportunities for Vietnamese growers,

processors, traders and government officials to meet with the Singapore delegation to discuss trading and investment opportunities.

Although the current import of vegetables and fruits from Vietnam each accounts for less than 2% of our total supply, the mission helped identify the latent potential for growth in the vegetable and fruit business in Vietnam.

A follow-up study trip by a Vietnam delegation on 11 January 2005 was testimony to their keen interest to export their produce to Singapore. AVA played host to the delegation comprising representatives from the Lamdong Tourism and Commercial Department, and the Science and Technology Services of Vietnam. The Vietnam market study mission aimed to gain a better understanding of the vegetable market in Singapore and to explore opportunities for export of produce from Lamdong Province to Singapore.

## Vegetable farming in Lamdong

**L**amdong Province is a well-known production zone for vegetables. An estimated 25,000 ha of land is available for vegetable farming and production numbers are around 616,000 tonnes per annum. Vegetables produced are mainly cabbage, cauliflower, potato, carrot, tomato and beans. About 8,600 ha of land is dedicated for fruit production with an output of 42,000 tonnes per year comprising mainly persimmon, avocado, durian, jackfruit, mulberry, strawberry and rambutan.



# Tending to Tree Health



*AVA and National Parks Board coordinate efforts to safeguard trees in Singapore.*

**T**rees are commonly the largest and most dominant element in many Singapore landscapes. Being relatively long-lived, trees lend a sense of permanence to the landscape and can become very emotive landmarks. However, such majesty takes time to nurture, and once lost, is irreplaceable. It is estimated that it costs on average \$60,000 to raise a sapling to maturity.

Mindful of this precious natural heritage and investment, the Plant Health Coordinating Committee (PHCC) in early 2004 formulated a health surveillance programme for trees in Singapore. The PHCC is made up of members from both AVA and the National Parks Board. It serves to coordinate efforts to monitor and preserve the health of trees, shrubs and other ornamental plants of the garden city.

Ten tree species, based on aesthetic importance, widespread prominence and known potential problems, were chosen to be monitored in the pilot phase. They are *Cinnamomum iners* (Wild Cinnamon); *Eugenia grandis* (Sea Apple); *Khaya senegalensis* (Senegal Mahogany); *Kopsia flavida* (Penang Sloe); *Milletia atropurpurea* (Purple Milletia); *Pterocarpus indicus* (Angsana); *Roystonea spp.* (Royal and Cabbage Palms); *Samanea saman* (Rain Tree); *Swietenia macrophylla* (American Mahogany); and *Tabebuia rosea* (Trumpet Tree).

The programme hinges on contributions from both AVA and NParks. In the course of routine inspections and maintenance work on Singapore trees, NParks' arborists may encounter unusual or unfamiliar tree health problems which are referred to AVA's Animal and Plant Health Centre (APHC) for diagnosis. Diagnosis results are compiled and recorded for remedial action. Under this programme, AVA anticipates about 3000 tree samples to be submitted for monitoring purposes per annum.

This programme safeguards the Garden City from exotic pest and disease incursions and provides data on the likely prevailing plant health problems of the Garden City. Early diagnosis allows for timely development and implementation of control measures. The programme affords Singapore long-term protection for the Garden City investments. The majesty of vulnerable tree species, which are commercially irreplaceable, will be protected for the continued enjoyment of future generations.

## Green ailments



*Fungi on Khaya root*



*Angsana trunk with wilt disease*



*Hispid beetle*

Problems identified and monitored include Khaya root rot, *Cinnamomum* collar rot, Angsana wilt, Rain Tree dieback, and hispid beetle infestations on palms. Nutrient imbalances affecting tree health are also looked into.

# Curbing the illegal wildlife trade

*AVA takes the hard line to crackdown on the illegal wildlife trade.*

The year 2004 proved a bumper year for CITES enforcement cases. Close to 100 cases were investigated with a few high profile ones grabbing the headlines. These cases ranged from smuggling of Red Sander wood to hard corals and the possession and keeping of illegally imported wildlife as pets. AVA took a hard line approach in dealing with these smugglers and dealers, with some being prosecuted in court while others were fined heavily for their respective offences.

## Success through close collaboration

Contributing to the success of our CITES investigations is the assistance rendered by both local and foreign government agencies and non-governmental organisations (NGOs).

AVA collaborated with the United States Fish and Wildlife Services in intercepting live reptiles from the US smuggled into Singapore via parcel post. The reptiles, mainly king snakes (*Lampropeltis spp.*), were packed in plastic containers and shipped to Singapore via parcel service. The student involved was subsequently prosecuted and fined \$4200 by the court.

We also worked closely with the Indian Customs Authority in 3 cases involving smuggled Red Sander (*Pterocarpus santalinus*) timber, a CITES Appendix II species from India. The 3 cases, amounting to 64 tonnes of Red Sander timber logs valued at more than \$200,000 were forfeited to AVA and repatriated to India.

Thanks to the watchful eyes of the Immigration and Checkpoints Authority at our entry and exit points, more than 6000 pieces of protected turtle species eggs (*Chelonia mydas* & *Eretmochelys imbricata*), 31 bales of reptile skins (*Python reticulatus* & *Varanus salvator*) and a number of hard coral shipments valued at more than \$500,000 were uncovered last year. AVA successfully prosecuted all smugglers of these contraband goods, most of which originated from neighbouring countries.



*In 2004, close to 100 CITES enforcement cases were investigated with a few high profile ones grabbing the headlines.*



*AVA prevents the exploitation of endangered species for trade through the issuance of CITES import and export permits.*

### Acting fast on tip-offs

Working with reliable intelligence and acting fast are crucial to breaking into the clandestine wildlife trade circle. A local NGO, Animal Concerns Research and Education Society, referred a few cases to AVA for investigation in 2004. In just two weeks last December, AVA investigated six different homes and confiscated 35 heads of wildlife from no less than 10 different species. Some of these were confiscated from just one stretch of houses at the same time! The offenders came from various walks of life ranging from students to professionals. They were prosecuted and fined accordingly.

### e-tracking wildlife sales

On the home front, AVA officers have gone tech savvy in cracking down on wildlife

infringement cases. By tracking wildlife sales offered over the internet, AVA officers have managed to nab and take enforcement action against 38 offenders under the Endangered Species (Import & Export) Act and the Wild Animals and Birds Act. The CITES-protected species confiscated ranged from hard coral species (*Acropora spp.*, *Turbinaria spp.*, *Platygyra spp.*, etc) and Arowana (*Scleropages formosus*) to primates (*Nycticebus spp.*, *Macaca spp.* & *Hylobates spp.*) and a plethora of reptiles and arthropods such as pythons, iguanas, bearded dragons, chameleons, tarantulas and scorpions.

The illegal wildlife trade may be a thriving enterprise worldwide but AVA will persevere in its effort to crackdown on the trade.

## What is CITES?

CITES is an international treaty which came into force on 1 July 1975 to ensure that international trade does not threaten animal and plant species with extinction. The over 150 member countries restrict international trade in more than 30,000 species of animals and plants listed in Appendix I (e.g. elephant and Arowana) and by regulating and monitoring trade in others included in Appendices II and III that might become endangered (e.g. monkey and crocodile).



The Arowana is a CITES Appendix I species.



An illegal import of elephant ivory.

## Quiz 8/2005

Answer these simple questions and ten correct entries will stand to win AVA souvenirs. Just select the correct answer to each of the three questions that follow, and fax, e-mail or mail your entry together with your name, NRIC, address and contact details to:

**Agri-Food & Veterinary Authority, 5 Maxwell Road, #04-00 Tower Block  
MND Complex, Singapore 069110  
Fax: 6220 6068, E-mail: [ava\\_info@ava.gov.sg](mailto:ava_info@ava.gov.sg)**

**Closing Date: 30 April 2005**

**Hint : Read the Food Safety advertorial that appears on pages 6-7.**

1. Choose canned food that is rusty, badly dented or swollen.  
(a) True (b) False
2. You must check for \_\_\_\_ before purchasing liquid milk or cream.  
(a) Price (b) Expiry date (c) Colour of carton
3. Do not buy fruits and vegetables that are bruised or blemished.  
(a) True (b) False



# Piscean twist to bah kwa



**F**ancy a fish “bah kwa” or a fish cookie for a snack? These new taste sensations claim that one bite would make converts out of even those averse to eating fish.

These delectable bites are the result of a project undertaken by AVA’s Marine Fisheries Research Department. Geared to develop value-added products from low-value under-utilised pelagic fish, the project comes under the Southeast Asian Fisheries Development Centre’s special 5-Year Programme on Maximization of Fish Utilization.

## From small fry to sweetmeat

A dried sweetmeat commonly eaten as a snack during Chinese New Year, the “bah kwa” is traditionally made from pork, chicken or beef. Research was undertaken by AVA to utilise tuna trimmings and low value pelagic fish species, such as the Indian Mackerel and Selar Scads for “bah kwa”. Through a combination of hot air drying and grilling processes, the AVA researchers succeeded in attaining the taste, colour and texture close to that of the traditional “bah kwa”.

It is anticipated that the similar attributes to the traditional “bah kwa” coupled with the low cost of the raw material will make the fish “bah kwa” a sure hit with manufacturers. As for consumers, it offers an alternative treat, and more importantly, it makes “bah kwa” now accessible to the Halal market as the ingredients used are all Halal.

## Keropok made healthy

Drawing inspiration from the much-loved *keropok*, a deep-fried fish cracker, the fish cookie is a new snack product made from

pelagic fish surimi using vacuum drying technology to process the product. Among the advantages of the vacuum drying technique is the greater retention of flavour and colour in the fish cookie as the process involves low temperature (80°C) and vacuum conditions. In contrast, the normal deep frying process utilises temperatures up to 180 to 200°C.

The fish cookie is also a healthier snack alternative that offers an extended shelf life compared to the traditional deep fried version which tends to turn rancid fast due to their high oil content.

For the current consumer market, the fish “bah kwa” and cookies may well become the snacks of choice as tradition gives way to healthier options.

## Plus points of fish “bah kwa” and cookies

- Low cost as they are made from low value pelagic fish and tuna trimmings
- Open to the Halal market as the ingredients used are all Halal
- Healthy snack as alternative cooking methods are used such as vacuum drying technology instead of deep frying to process the fish cookies
- Extended shelf life due to low oil content
- Greater retention of flavour and colour in final products

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