

# AVA

FEBRUARY 2006

The authority for food safety and animal and plant health

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# Ornamental fish training makes big splash



*A group shot at the launch of the first Ornamental Fish Culture and Export Training Course.*

The first Ornamental Fish Culture and Export Training Course organised by AVA's subsidiary company (Agrifood Technologies Pte Ltd) went off with a crackling start on 19 January 2006. The event was officiated by Mr Robert Lee, the Director of Agrifood Technologies Pte Ltd who launched the course by initiating an animated cracker. It saw the gathering of over 40 comprising course participants, lecturers, ornamental fish industry leaders and AVA representatives.

Targeted at ornamental fish companies in Singapore who want to upgrade their workers' skills in farm operations, fish culture and export, the pioneer batch of trainees comprised 20 participants. The training programme is part of an overall strategy to maintain Singapore's lead position in the global ornamental fish market despite increasing competition from emerging exporting countries like Malaysia, Czech Republic, Spain, Indonesia, and Japan.

In his opening speech, Mr Lee expressed his appreciation to the Singapore Aquarium Fish Exporters' Association, Singapore Tropical Aquarium Fish Breeders' Association and AVA's Ornamental Fish Business Cluster for their show of support for the course. He also applauded the industry for recognising the need for continual skills upgrading through training to ensure that their production of ornamental fish would continue to meet world-wide demand and be of top-notch quality.

Dr Kenny Yap, Chairman of Ornamental Fish Business Cluster, in his speech remarked, "By all indications, our export continues to increase since 2004 and Singapore is still the world's largest exporter of ornamental fish. Today's launch of the Ornamental Fish Cluster training programme marks the commencement of our journey, in the pursuit of excellence as our workers continue to upgrade their skills, knowledge and productivity." He also introduced the Cluster's objective for the year, that is, "to make R&D a long-term strategy for the industry's future".

Trainers for this course include AVA officers and industry ornamental fish experts with many years of experience and knowledge in the art and science of raising high quality ornamental fish. Besides classroom lessons, the course will provide participants with practical training in key areas such as recognition of fish diseases, disease treatment methods, and fish harvesting and packing. As a course participant, Ms Jasmine Low from Trop Aquarium said, "I hope to gain more knowledge on ornamental fish through this course," and upon the completion of this course, we can anticipate that she would prove to be a valuable asset in her company.

## About Agrifood Technologies Pte Ltd

Agrifood Technologies Pte Ltd is a fully owned private subsidiary of AVA which undertakes agri-consultancy as well as development and training projects to help to meet the strategic interests of AVA and Singapore.

*Trainers for the course include AVA officers and ornamental fish industry experts.*



# US beef mooving back to Singapore



**E**xpect sizzling steaks made from American beef in your favourite restaurants soon when the two-year ban on US beef imports is lifted.

To help ensure food supply resilience, AVA has adopted an approach that allows imports of beef on a limited basis from countries hit by mad-cow disease or Bovine Spongiform Encephalopathy (BSE). The US is the first to benefit from this stance but the beef imports are restricted to deboned cuts from young cattle less than 30 months old.

AVA had banned US beef imports on 24 December 2003, after a case of mad-cow disease was detected in the State of Washington. Prior to the ban, beef imports from US accounted for about 5 per cent (1,009 tonnes) of Singapore's annual beef supply. Based on the limited knowledge of the disease available then and the information that the disease could take more than five years to surface, AVA permitted only beef imports from accredited sources that had no such cases for at least six years. However the current scenario has changed with new findings that substantiate that beef from affected countries can still be safe if proper control and surveillance programmes are enforced.

In 2005, AVA reviewed its import conditions for beef from mad-cow-disease-affected countries and developed new import requirements to allow restricted beef imports in line with the OIE (World Organisation for Animal Health) guidelines for trade in beef from BSE-affected countries. These import requirements ensure that beef imports from mad-cow-disease-affected countries are safe for consumption. In addition, a full assessment of the risk of mad-cow disease from US beef imports and an on-site inspection in the US in November 2005, were conducted. AVA is satisfied that the US has in place effective safeguards to ensure that deboned beef cuts exported are safe for consumption.

AVA is currently working with the US Department of Agriculture (USDA) to finalise the operational details of the health certification programme to facilitate the resumption of imports. Importers will be allowed to bring in US beef consignments once these details are finalised. This could take a month. In addition every consignment of beef from US, like all other meat imports, will be subject to stringent inspection and laboratory testing upon arrival in Singapore.

## Endangered Species Act gets added bite

**S**trengthening AVA's enforcement powers against illegal transshipments of CITES-protected wildlife species through Singapore is the newly amended Endangered Species (Import and Export) Act passed in Parliament on 17 January 2006. The Endangered Species Act was passed in Parliament in March 1989 and was last amended in 2002 to include a list of endangered species.

The amended Act will empower AVA to investigate illegal transshipment or transit cases, and search, inspect, detain, seize or confiscate any illegal CITES-protected species. Applicable to both travellers and cargoes, the new provision will enable AVA to act decisively upon receiving strong evidence and tip-offs of illegal CITES-protected species being transshipped through Singapore and prevent Singapore from being a conduit for the smuggling of such species.

In addition, fake products that claim to contain parts of an endangered species, e.g. traditional Chinese medicines that purport to contain bear bile, tiger bone, rhino horn, etc, will be treated as genuine and subject to the same penalties.

Similar provisions can be found in countries such as Australia and Hong Kong. On another front, advertising illegal CITES specimens for sale has also been made an offence. With the proliferation of Internet access, online advertisements is one of the commonly used routes to source for buyers for illegal wildlife.

Smugglers of endangered animals and plant will also face penalties that have gone up 10-fold under the amended Act. Aimed to act as an effective deterrence against the illegal trafficking and trade of CITES-protected species, those found guilty face a maximum penalty of \$50,000 per species, up to a maximum total of \$500,000, and imprisonment of up to two years. The stiffer penalties extend to abetment and attempted offences.

According to Interpol, smuggling of wildlife is second only to narcotics, and generates profits of as much as US\$5 billion annually. With the Parliament passing the amended Act, AVA now has a greater fighting chance to curtail the illegal trade of endangered wildlife in Singapore.

# MFRD- Lending a fin to the fish processing industry



The Marine Fisheries Research Department was established in 1969 and is now located in Lim Chu Kang Agri-Bio Park.

Creating commercial success stories from significant breakthroughs and technology transfers in fisheries post-harvest technology is the Marine Fisheries Research Department (MFRD), one of the four Departments of the Southeast Asian Fisheries Development Centre, of which Singapore is a member country. Hosted by AVA, the MFRD was established in 1969 to promote, undertake and coordinate research and development in areas such as fish and fish product processing, handling, preservation and quality assessment.

## Automating the fish processing industry

The MFRD was instrumental in turning the fish processing industry from a predominantly domestic, labour-intensive, backyard industry into a mechanised and later automated, modern one that is growing in its export markets. To encourage automation and mechanisation in the industry, MFRD, in the late 1970s, identified and introduced suitable processing equipment from Japan such as the meat-bone separator machine, fish-ball forming machine, fish-cake forming machine and the silent cutter. These are now considered standard equipment for the fish processing industry in Singapore and the region. With assistance from the Economic Development Board and the Productivity and Standards Board (now SPRING Singapore), the automated fish ball/fish cake processing line was also developed in a local fish processing factory in the 1990s.

## Introducing surimi to Southeast Asia

Shortage in the supply of fresh fish was a serious problem faced by the fish processing industries in Singapore in the 1970s. MFRD therefore introduced surimi technology from Japan and promoted the use of surimi for the

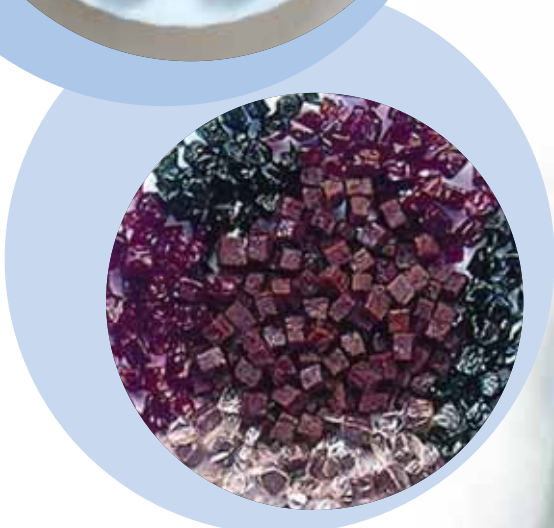
fishball/fish cake industry thereby reducing the industry's dependence on the supply of fresh fish. Surimi is frozen minced fish meat that has been washed with water and thoroughly mixed with a cryoprotectant (a substance that is used to protect biological tissue from damage due to ice formation) such as sugar and polyphosphate. The fish processors were also able to mechanise and automate their operations leading to increased production capacities.

Not content with just introducing the technology to Singapore and subsequently to Southeast Asia, MFRD delved into research in product development using surimi. The rich harvest of such research was a wide variety of value-added surimi products such as imitation crab sticks, chikuwa (pureed and steamed fish cake), fish-balls and prawnballs etc. These products are now commonly sold throughout Southeast Asia and some are also exported to Japan, the US, Europe and Australia.

## Creative leaps in fish products

From innovative value-added fish products to new technologies, MFRD's creative boost to the industry has been significant. MFRD introduced the retort pouch technology for processing seafood using tuna trimmings and by-products as raw material, as well as developing other value-added seafood retort-pouch products. Some of the retort-pouch products developed over the years are tuna in mayonnaise, tuna and vegetable in mayonnaise, and seafood in assam sauce. Fish products developed included tuna ham, tuna loaf, tuna chunk sausage, tuna piko ("sweets"), fish sausage, fish bak kwa, fish noodle and Weiner sausage.

Fish products developed by the Marine Fisheries Research Department include (clockwise from left): Tuna chunk sausage, chikuwa, fish bak kwa and tuna piko.



### Ensuring quality and standards

In the mid-1980s, MFRD introduced Hazard Analysis Critical Control Point (HACCP) to the Southeast Asian fish processing industry and actively assisted the industry to develop and implement HACCP for the processing lines. This was done through the Department's training courses and by working hand-in-hand with the industry.

HACCP is a quality assurance tool that has been specifically adopted for the food industry to enable management to achieve food safety all the way from "the farm to the fork". It ensures food safety through biological, chemical and physical hazard identification and control in the production process. It is a powerful food safety management technique that is logical, systematic and preventive in nature. A better approach compared to the traditional inspection and end product methods, it is also cost effective and complements other Quality Management Systems such as ISO 9000.

MFRD also assisted and continues to assist key fish inspection laboratories in the region to implement good laboratory practices, and to guide them towards ISO 17025 accreditation. The Department also promotes harmonisation of the test results through regional inter-laboratory proficiency testing. This is to enable such laboratories in the region to reach a level of technical competency to produce reliable and accurate results that give credence to the health certificates they issue.

### Training agency in fisheries post-harvest technology

To boost the fish processing industry locally and in the region, MFRD initiated training programmes in fisheries post-harvest technology for both public and private sector personnel. From 1980 to 2005, this initiative has seen the conduct of a total of 147 training courses that includes workshops, lectures, special fellowships, seminars and meetings, and has trained a total of 2,207 people, about 50% of whom are from the private sector. The success of these courses is reflected in the accelerated development of the local and regional fish processing industry with Southeast Asia having 35 surimi factories, 16 of which are in Thailand. These factories export surimi products to Japan and other countries such as Singapore.

Looking forward, with the support of MFRD, the Southeast Asian fish processing industry is set to make waves globally with its quality-assured innovative fish and seafood products.

## CAN YOU BRING FOOD

Many of us like to bring home food after our holidays, especially during the festive season, but do you know that there are restrictions on food that you can bring in from overseas?

As the national food safety authority, the **Agri-Food and Veterinary Authority (AVA)** is responsible for maintaining high food safety standards in Singapore. You can help us uphold these standards by observing the guidelines on the types, quantities and sources of food that you can bring into Singapore.

### DECLARE ALL FOOD PRODUCTS



"Beef balls? These are extra-bouncy ping pong balls for my son."



"Sausages? That's an ethnic necklace."

### DON'T BRING IN EXCESS FOOD



"What goose drumsticks? This is the latest hanging mobile design."



"Oops!"

# ews**bites**

THE AGRI-FOOD AND VETERINARY AUTHORITY

## INTO SINGAPORE?

### WHAT IS ALLOWED? (NO PERMIT REQUIRED)

The food products and amounts that can be brought into Singapore from approved sources without a permit from AVA are indicated in the table below. Approved sources may change due to health and safety reasons.

For the latest listing, please visit the AVA website at [www.ava.gov.sg](http://www.ava.gov.sg).

When in doubt, please declare your food items to the Immigration and Checkpoints Authority officers.

	Food Type	Country from which food may be brought in	Personal allowance
Meat	Beef (chilled, frozen, of processed or canned)	Argentina, Australia, Brazil, New Zealand, South Africa & Sweden	A total of 5 kg per person beef, mutton, pork & poultry
	Mutton (chilled, frozen, processed or canned)	Argentina, Australia, Belgium, Brazil, Canada, Denmark, Ireland, New Zealand, Switzerland, The Netherlands, United Kingdom & USA	
	Pork (chilled, frozen, processed or canned)	Australia, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, New Zealand, South Africa, Sweden, Switzerland, The Netherlands, United Kingdom & USA	
	Poultry (chilled, frozen, processed or canned)	Argentina, Australia, Belgium, Brazil, Denmark, France, Germany, Hungary, Ireland, Israel, Switzerland, The Netherlands, United Kingdom & USA	
Seafood	Fish products (except (provided frozen cooked crabmeat, frozen cooked prawn meat & live or frozen oysters)	All countries	5 kg per person that the total quantity of all seafood products does not exceed 5 kg per person)
	Live or frozen oysters	Australia, Canada, France, Ireland, New Zealand, The Netherlands, United Kingdom & USA	
	Frozen cooked crabmeat & frozen prawn meat	All countries	2 kg per person (provided that the total cooked quantity of all seafood products does not exceed 5 kg per person)
Eggs	Hen Eggs	Australia, France, Japan, New Zealand & Sweden	Up to 30 eggs per person
Fruits & Vegetables	Fresh Fruits & Vegetables	All countries except the American tropics (which includes Barbados, Belize, Bolivia, Brazil, Colombia, Cuba, Costa Rica, Dominica, Dominican Rep, Ecuador, El Salvador, French Guyana, Grenada, Guadeloupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, St Lucia, St Vincent & the Grenadines, Suriname, Trinidad & Tobago, Venezuela & Virgin Islands)	Small, reasonable quantities hand carried for personal consumption
Processed Food	Processed Food Products does (all food products excluding meat and seafood products, fresh fruits and vegetables)	All countries	Total weight or volume not exceed 5 kg or 1tr and the total value is not more than S\$100 per person

# Pet responsibility goes retail

**W**ith a wag of a dog's tail and the nod from a cat, the AVA's Responsible Pet Ownership Roadshow 2005 was launched to wow the crowd with its two-day event packed with stage games and shows, educational sessions and kids' activities.

## Tightening the legislative leash

Held on 26 and 27 November 2005 at Ngee Ann City Civic Plaza, the Singapore retail therapy zone, the opening ceremony was graced by Mr Heng Chee How, Minister of State for National Development. In his opening speech, citing pet abandonment figures, Mr Heng said, "The figures that I have convince me that we have to improve in becoming a community of responsible pet owners, and in stopping pet abandonment."

Highlighting that some 43,000 households in Singapore own dogs and that about 6,000 dogs and 12,000 cats are put to sleep annually, he announced that AVA was reviewing current legislation in an effort to reduce the number of unwanted litters, deter people from abandoning their pets and increase the likelihood that lost dogs will be reunited with their owners.

Included in the review is the proposal to levy a higher annual licence fee for unsterilised male dogs, to reduce indiscriminate breeding. Fees will be increased from the current \$14 to \$70 to be on par with that charged for unsterilised female dogs. Stiffer penalties are also being considered for people who keep unlicensed dogs. The current fine is \$500.

Compulsory tagging of all newly licensed dogs with traceable microchips is also being considered. At present a requirement for all imported dogs, this may be extended to newly licensed dogs, including those bred locally, to deter irresponsible pet owners from abandoning their dogs.

Feedback will be sought from various groups, including pet owners, veterinarians, animal welfare groups and trade representatives to ensure that the measures are implemented effectively and smoothly.



*Launching the Responsible Pet Ownership Roadshow 2005 was Mr Heng Chee How, Minister of State for National Development (right) and Dr Chua Sin Bin, CEO, AVA.*

*Fun lessons in responsible pet ownership at the Kid's Corner.*



### Purrfect show for kids

Aside from formal ceremony, prizes for the winners of the Responsible Pet Ownership Photography Competition and tokens of appreciation to eight animal welfare groups were given out during the launch. The close of the ceremony marked the beginning of the day's fun-filled events. Eager crowds were engaged by programmes such as dog obedience training demonstrations by the Singapore Kennel Club, stage skits by Raffles Girls School, talks by various animal welfare groups and even a fund-raising auction.

Children were kept busy with a specially created Kids' Corner which housed fun and engaging activities such as story-telling, face painting and colouring while shoppers were not left out, with numerous booths selling pet care items, sculpted balloons, children's books and personalised gifts that were perfect for the festive season. Not forgetting the theme of the year, 'You Can't Teach Them To Play It Safe – Sterilise Your Pets', collaterals such as brochures, postcards, mousepads and post-its were distributed at the AVA Information Booth spreading the all-important message that 'A Pet Is For Life'.

*Demonstrating some obedience training moves is a trainer at the Roadshow.*



*Getting to know more about pet care.*

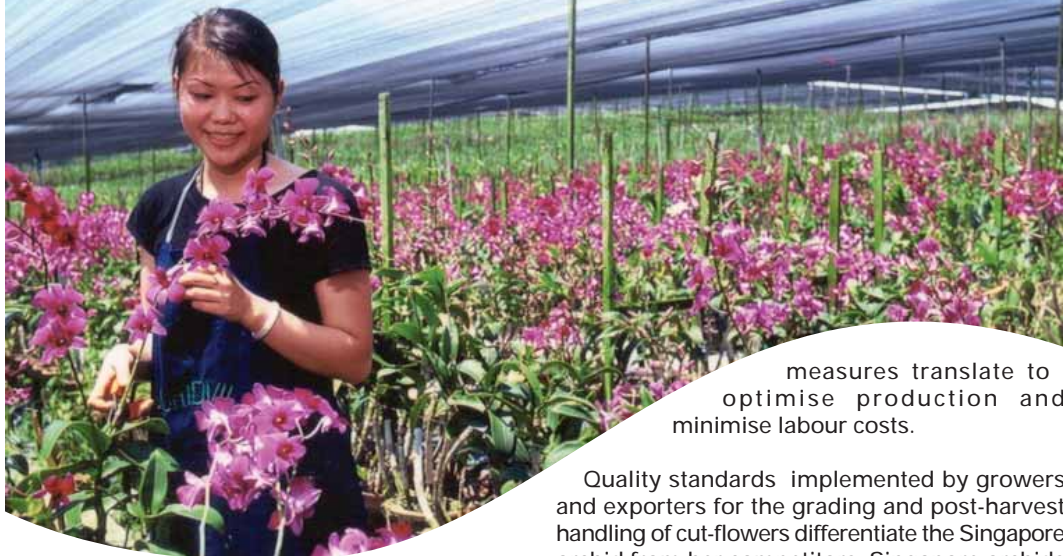


*A young visitor discovers the bare facts of not sterilising cats through an educational poster.*



*Visitors get a chance to get up-close and personal with pet animals at the Roadshow.*

# The secret behind the blooming success



measures translate to optimise production and minimise labour costs.

Quality standards implemented by growers and exporters for the grading and post-harvest handling of cut-flowers differentiate the Singapore orchid from her competitors. Singapore orchids are of superior quality as they are managed under the ISO 9001 Quality Management System and the Assurance Certification Scheme (ACS). Together with the introduction of the ISO 9001 certification system for orchid cut-flower export packing operations, Singapore orchids now have the added edge against major competitors.

Comprehensive quality assurance and collective efforts to cater to consumer needs have paved the way for closer cooperation and vastly improved trade relations between Singapore and her export markets. An example is the Sectoral Annex for Horticultural Goods under the Singapore Australia Free Trade Agreement (SAFTA), where consignments arriving in Australia are exempted from the mandatory fumigation with methyl bromide if no actionable pests are detected.

## Push to fuel growth

Through AVA, the Orchid Business Cluster in 2003 was formed to formulate and implement strategies in identifying and developing new markets and products for the industry, and to address issues on production and postharvest technology, training and opportunities and constraints faced by the industry. AVA also helps to evaluate and select orchids bred by local breeders and develops appropriate agritechology for the production and postharvest handling of the selected new varieties to ensure that optimum yields are obtained by the farmers and quality is maintained when they reach overseas markets. In addition to research on various aspects of orchidology, extension services are provided for plant health diagnosis, phytosanitary inspection and certification to facilitate export of orchids.

## Best for blooming business

Singapore's excellent infrastructure, coupled with intensive collaborative efforts to develop new varieties and new technology for production and postharvest handling, make this tiny city state a prominent and ideal hub for growth of the orchid industry. It is well poised to develop to greater heights and to capture a larger share of the annual world market.

**F**or an island that occupies just a dot on the world map, Singapore is world renowned for producing top quality cut-orchids. For more than 50 years, Singapore orchids have captivated millions of people all over the world with their ethereal beauty, long vase-life and ready supply throughout the year. What is the secret behind the success of the Singapore orchid?

## Networked for speedy delivery

Singapore's strategic location, at the cross-roads of regional and international floriculture trade, makes it an excellent trading and distribution centre. Together with a sophisticated infrastructure of distribution and transportation facilities that are constantly upgraded, Singapore exporters can ensure reliable and efficient handling of delicate blooms. In addition, an efficient international air-transport network and direct telecommunication links assure speedy delivery of time-sensitive perishable flowers.

## Tropical climate, thriving orchids

Blessed with a tropical climate, Singapore is conducive for cultivating healthy plants that produce flowers throughout the year. Only the best orchids are grown to cater to niche buyers worldwide. These include Japan, the top importer, as well as United States, Australia, China, Canada, Europe and Middle East countries. Today, Singapore's orchid cut-flowers account for 15% of the world market. From \$2 million in 1970, exports escalated to \$29.08 million in year 2004.

More than 80 free-flowering orchid varieties in a myriad of colours such as white, mauve, green, yellow, red, pink and blue are grown. Popular genera produced are Dendrobium, Oncidium, Mokara and Aranda with the vase-life of most varieties lasting up to a month. The plants are cultivated on 320 hectares of AVA-managed farmland spread out over six Agrotechnology Parks in Lim Chu Kang, Sungei Tengah, Mandai, Murai, Jalan Kayu and Punggol. These high technology farms undertake intensive cultivation and attain high farm productivity through skilled labour, the use of automated fertigation systems and robotic agri-chemical sprayers. These

# Plant doctors are crowd-pullers



Imparting plant facts to the young at a Clean and Green Week carnival is AVA's 'Plant Doctor'.

**C**lean and Green Week (CGW), organised by the National Parks Board and the National Environment Agency, has a staunch supporter in AVA as we have been participating in their annual carnival for many years, including the most recent one held on 12 November 2005. Each year, the AVA Plant Clinic continues to be a crowd-puller at the CGW carnival.

Sprouting colourful and informative posters on popular topics such as plant health management, common pests and diseases of houseplants, fertilizer use and safe pesticide application, the AVA Plant Clinic is an instant draw for eager gardeners. Add on live insect specimens and diseased plants showing actual symptoms of ill-health, you have a sure-win strategy to pique the interest of even curious passers-by.

On hand were 'Plant Doctors' or AVA's plant health specialists to offer advice and answer queries on plant care topics. While digging up gardening tips was the top priority for the adults, young budding scientists were drawn to the microscopic world of fungal spores and lacewing eggs. Here are some of the commonly asked questions

**Plant query:** Why don't my orchids flower anymore?

**AVA specialist says:** First, know the type of orchid that you have and make sure the conditions are right for it. For example, Phalaenopsis cultivars prefer indirect sunlight and light watering to keep roots slightly moist, but Dendrobium types will do well in full sunlight and need more frequent watering.

Secondly, the type of fertilizers applied plays an important role for flowering. Fertilizers high in phosphorus and potassium are essential for good flower formation. After flowering, trim off the old flower spikes and leaves and add small doses of nitrogen, phosphorus and potassium fertilizers to boost foliage growth and build up food stores for the next flowering cycle. Many home

gardeners bring their blooming orchids indoors to enjoy the flowers. Once flowering is over, it is recommended to leave them outdoors, either in sun or semi-shade as appropriate for the species. This exposes them to the natural fluctuations in the outdoor environment (humidity and temperatures) to trigger flowering cycles.

**Plant Query:** What can I do about sucking insects like mealy bugs, aphids or scales on my plants? I prefer not to spray pesticides as I have children and pets in the house.

**AVA specialist says:** This is an increasingly popular question asked as home gardeners nowadays are mindful of the effects of chemicals on humans and the environment. We propose a safer biological means. Although this does not have the quick knock-down effect of pesticides, it is suitable for low pest infestations and home use.

First, cut off as much of the affected plant parts as possible, bag them and then discard. In a hand sprayer, add one squirt (~5 ml) of baby shampoo or dishwashing detergent to 500 ml of water. Add in about 1.5 tablespoons of vegetable cooking oil. Shake well and spray onto the affected plants. The soap solution disrupts the waxy covering of sucking insects and exposes them to drying, while the oil layer suffocates them. In 1-2 days, you can wipe or pick off the insects easily.

**Plant Query:** Why do my indoor plants like dracaena and palms often show brown leaf tips? I water them well.

**AVA specialist says:** This is a common problem when your indoor environment is too dry (low humidity) especially if it's air-conditioned, drafty or windy. Water is being drawn away from the plant cells and those at the leaf tips and edges are most affected, leaving them dried and browned. Snip off these brown tips. Mist spray the foliage often to induce a higher humid environment around the plants. This will reduce drying of the leaf tip.



Got a plant health question you've been itching to ask?  
Email your questions to [AVA\\_planthealth@AVA.gov.sg](mailto:AVA_planthealth@AVA.gov.sg).

# Making food shortfall next to never

**B**ird flu is grabbing the headlines nowadays as the disease spreads from the first cases in Asia to more recent outbreaks in Turkey and Eastern Europe. Not only is the disease a health threat but it can also have economic repercussions as the case in Malaysia in 2004 bears testimony.

The supply of poultry and poultry products from Malaysia to Singapore hit a snag on 18 August 2004 following the outbreak of bird flu in Kelantan, and the subsequent Singapore ban on Malaysian poultry and poultry product imports. Poultry industries on both sides of the Causeway were severely affected.

## Food shortfall a ban bet

It is a common practice that when a disease of concern affects a supplying country, the importing country usually takes steps to either stop further imports to prevent entry of the unwanted disease or impose restrictions to ensure that the additional risks posed by the import can be mitigated and managed during the importation process. However, such drastic measures can create a serious shortfall, especially if the country is the major supplier of the banned product. In the Kelantan case, half of the poultry and two-thirds of eggs consumed in Singapore came from Malaysia and the ban had a significant impact on these supplies and prices.

## New twist to old ways

With an aim to ensure food supply resilience, AVA reviewed its policies that called for an outright ban on an entire country's imports even when a disease was constrained to a particular region or state in the country.

As a result, AVA adopted a regionalisation approach whereby imports from disease-free zones established in infected countries are allowed, subject to meeting AVA's conditions for the establishment of stringent control and surveillance programmes. Not only is this consistent with international guidelines, it is also in line with AVA's risk management approach to food imports.

Subsequently, AVA with the help of Malaysian counterparts, established bird flu free zones in the States of Perak, Selangor, Negri Sembilan, Malacca and Johor. This, together with the introduction of enhanced control and surveillance programmes, enabled imports of poultry and poultry products to resume from Malaysia without compromising animal or public health by 30 September 2004.

With bird flu remaining endemic in the region, the disease-free zone approach adopted by AVA assumes greater significance in ensuring a resilient supply of food for Singapore.



Stringent checks are conducted by AVA officers for poultry imports entering Singapore from disease-free Malaysian states.

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