

**Legislative Council
of the
Hong Kong Special Administrative Region**

**Delegation of the
Panel on Food Safety and
Environmental Hygiene**

**Report on the duty visit to
study the operation
of poultry slaughtering in
Singapore on 25, 26 and 28 July 2006
and Kuala Lumpur on 29 July 2006**

TABLE OF CONTENTS

Chapter		Page
1	Introduction	1 – 2
2	Poultry Slaughtering System in Singapore	3 – 10
3	Markets and Hawker Centres in Singapore	11 – 14
4	Poultry Slaughtering in Malaysia	15 – 17
5	Observations	18 – 19

Appendix

I	Programme of the visit	
II	List of the Government officials and representatives with whom the delegation met	
III	Reference materials obtained during the visit	
IV	Pictorial description of poultry slaughtering process	

Chapter 1 – Introduction

Purpose of report

1.1 A delegation of the Panel on Food Safety and Environmental Hygiene of the Legislative Council visited Singapore on 25, 26 and 28 July 2006 and Kuala Lumpur on 29 July to obtain first-hand information on the operation of poultry slaughtering in these places. While in Singapore, the delegation also visited some chicken retail outlets. This report presents the main findings and observations of the delegation.

Background

1.2 The Panel on Food Safety and Environmental Hygiene is tasked to monitor and examine Government policies and issues of public concern relating to food safety, environmental hygiene and agriculture and fisheries.

1.3 Given the recent development of avian influenza outbreaks across different regions, the Panel has urged the Government to take extra precautionary measures against avian influenza. At its meetings in March and April 2006, the Panel discussed with the Government the latter's plan to develop a poultry slaughtering plant in Sheung Shui. The Government has advised that upon the operation of the slaughtering plant in around 2009, the sale of live poultry at retail outlets will be prohibited. Legislative amendments will be required to put in place a licensing regime for the operation of the poultry slaughtering plant, and to ban the sale of live poultry at retail outlets.

1.4 Members have divergent views on the viability of the proposed slaughtering plant, having regard to the community's preference for freshly slaughtered chickens and the competition from Mainland chilled chickens. Members have also expressed concern about monopoly by the slaughtering plant operation.

1.5 To assist the Panel in further discussing with the Administration the operation of the proposed poultry slaughtering plant, members agreed that the Panel should undertake a visit to Singapore and Kuala Lumpur to obtain first-hand information about the operation of poultry slaughtering plants in these places.

1.6 On 7 July 2006, the Panel obtained the House Committee's permission to undertake the visit to Singapore and Kuala Lumpur.

Membership of the delegation

1.7 The delegation comprised the following Members -

Hon Fred LI Wah-ming, JP (Panel Chairman and leader of delegation)

Hon WONG Yung-kan, JP, (Deputy Panel Chairman)

Hon Vincent FANG Kang, JP

Dr Hon Joseph LEE Kok-long, JP

Dr Hon KWOK Ka-ki

1.8 Miss Mary SO, Senior Council Secretary (2)8, accompanied the delegation on the visit.

Visit programme

1.9 The delegation visited Singapore on 25, 26 and 28 July 2006 and Kuala Lumpur on 29 July 2006. During the stay in Singapore, the delegation visited a poultry slaughtering plant run by the Soonly Food Processing Pte Ltd, received a briefing by the National Environment Agency on Singapore's policy on and management of markets/hawker centres, and toured two wet markets and supermarkets respectively. The delegation also paid a courtesy call to the Singapore-Hong Kong Parliamentary Friendship Group. While in Kuala Lumpur, the delegation visited a poultry slaughtering plant run by Lay Hong Berhad.

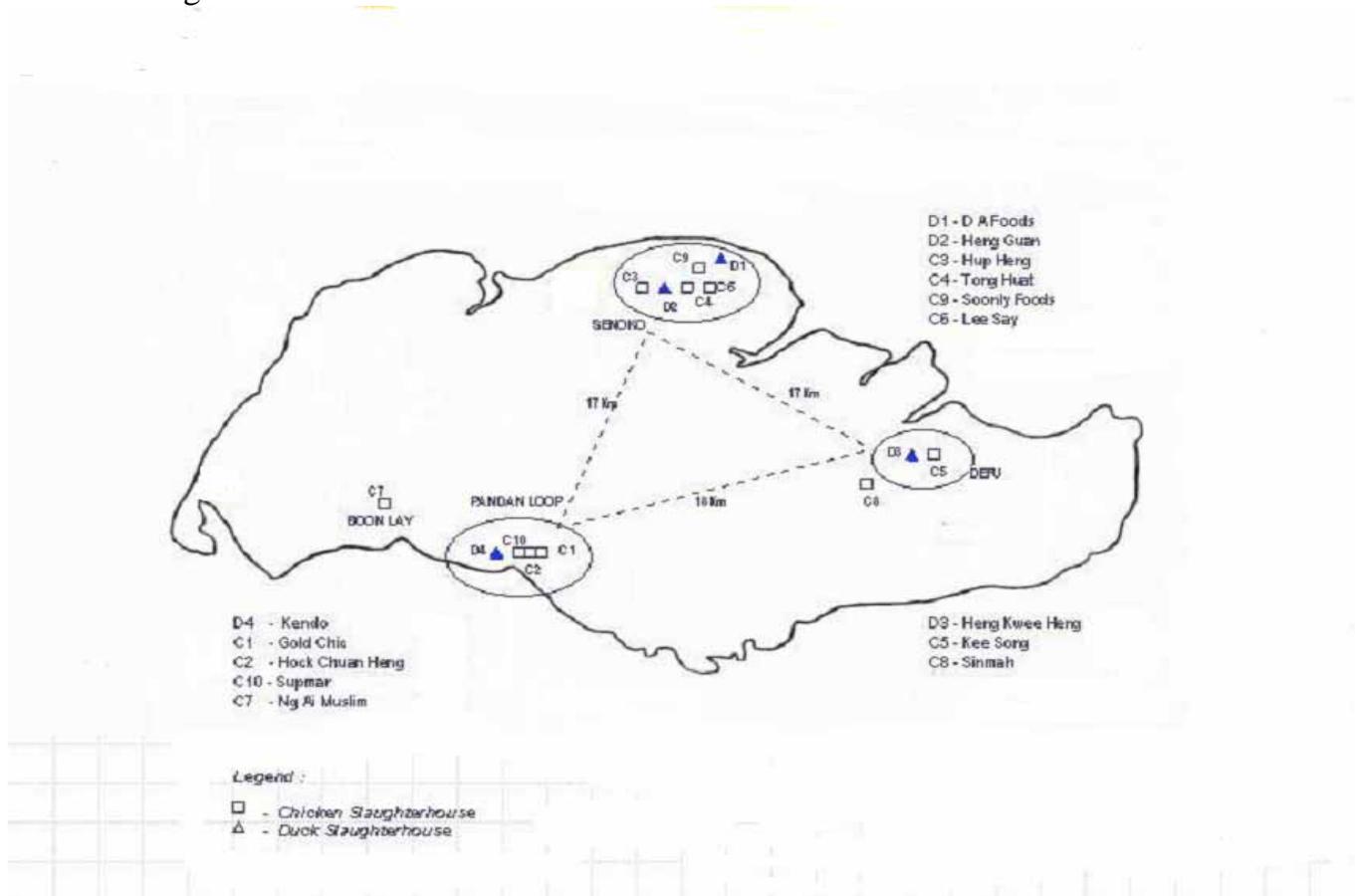
1.10 Further details of the visit programme are in **Appendix I**. A list of the Government officials and representatives with whom the delegation met is in **Appendix II**. A list of the reference materials obtained during the visit is in **Appendix III**.

Chapter 2 – Poultry Slaughtering System in Singapore

Overview

2.1 The Singapore Government announced its plan to prohibit slaughtering of poultry in wet markets in 1990. Phasing out of slaughtering of poultry in wet markets began in January 1991. Since March 1993, all poultry are required to be processed at an Agri-Food and Veterinary Authority (AVA)-approved poultry slaughtering plant. AVA is the national authority on food safety for both primary and processed food, and is responsible also for monitoring and enforcing the relevant legislation.

2.2 There are currently 14 poultry slaughtering plants in Singapore, all of which are privately-run. Ten of them slaughter live chickens while four slaughter live ducks.



Location map of poultry slaughterhouses in Singapore

2.3 At present, 50% of the poultry products imported into Singapore are frozen poultry meat from countries such as Brazil, the United States and the Netherlands. The other 50% is from Malaysia. About 120 000 live chickens are imported daily from 99 AVA-accredited farms located mainly in the Johor State in Malaysia. These comprise 98% of the source of live chickens in Singapore, while the remaining 2% are from five layer farms in Singapore. Live ducks come from 50 AVA-accredited farms mainly from the Perak State in

Malaysia, and comprise 100% of the source of live ducks in Singapore.

Legislation

2.4 The Wholesome Meat and Fish Act (the Act) provides that no person shall slaughter any animal which is intended for human consumption or permit such animal to be slaughtered on any premises, unless those premises have been licensed by AVA as a slaughter-house and the person concerned has been granted by AVA a permit allowing him to slaughter the animal on those premises. Any licensee who breaches any of the conditions of licensing shall be guilty of an offence under the Act and is liable on conviction to a maximum fine of S\$10,000 (about HK\$50,000) and/or 12-month imprisonment. The slaughtering licence issued may also be suspended or revoked.

Regulation of poultry slaughtering plant

2.5 Under the Conditions of Licensing of Poultry Slaughter-Houses issued pursuant to section 11 of the Act, all slaughter-houses must comply with a series of licensing conditions before operation. The major licensing conditions include -

Regulation of the overall operation

- (a) Design: slaughter-houses must be designed in such a manner as to allow one-directional flow to prevent cross-contamination between live poultry and dressed carcasses. The partition materials of slaughter-houses must also meet specific conditions to prevent bacterial growth and transmission;
- (b) Hygiene requirements: all slaughter-houses must have adequate sanitary facilities and are required to implement the Hazard Analysis and Critical Control Point (HACCP) or similar food safety system. A proper programme must be in place to recall products that are not processed in accordance with the law;
- (c) Personnel: all slaughter-houses must ensure that individuals responsible for handling food have received adequate and appropriate training and are given protective clothing;
- (d) Restricted use of premises: only the type of poultry as stated in the licence is allowed to be slaughtered in the slaughter-house. The number of poultry to be slaughtered, based on the capacity and line speed of the slaughter-house, is subject to the approval of AVA. In addition, no portion of the slaughter-house is allowed to be used as living quarters, and all activities taking place in the

slaughter-house must be approved by AVA. Only authorized personnel are allowed into areas where the poultry is slaughtered, processed or handled;

Regulation of the slaughtering process

- (e) Reception: all live poultry must be delivered directly to the holding bays of the slaughter-house. Live poultry are not allowed to be taken out of the slaughter-house or sold without the prior permission of AVA. Live poultry must be slaughtered within 24 hours of arrival at the slaughter-house;
- (f) Slaughtering: the method of slaughter must be as humane as possible and approved by AVA. It must comply with the specific requirements for preventing bacterial growth and transmission;
- (g) Inspection: inspection of the poultry carcasses must be carried out after the evisceration process. Adequate veterinary inspectors must be engaged by the slaughter-house to carry out ante-mortem and post-mortem inspections of the carcasses;
- (h) Chilling: the chilling process of the dressed poultry must be completed within 90 minutes after evisceration. Ice used for processing and chilling of the dressed poultry must be manufactured from uncontaminated potable water;
- (i) Tagging: all freshly slaughtered poultry carcasses must be individually tagged to state the name of the slaughter-house and the date of slaughter;
- (j) Slaughter-houses: slaughter-houses with prior permission from AVA to carry out thawing of frozen poultry or poultry parts should ensure that the thawed poultry/poultry parts are tagged and labelled with the following information and advice: (1) the poultry was thawed from frozen poultry; (2) do not refreeze; (3) use within three days from the date of thawing; (4) keep refrigerated; and (5) state the country of origin if the poultry is imported;
- (k) Storage, processing and packaging: the dressed poultry must be stored in chillers or freezers at specified temperature. The slaughter-house licensee must make the temperature records of the chillers or freezers available for inspection by AVA up to a period of three months. Prior permission must be obtained from AVA for thawing and processing of the poultry. Any further cutting up of the dressed poultry must also be approved by AVA

and has to be carried out in a room of specified temperature;

- (l) Transportation: all dressed poultry must be transported by vehicles with refrigerating facilities. Chilled poultry products must be kept at 4°C or below, while frozen poultry products must be kept at -18°C or below; and
- (m) Inspection: the licensee of a poultry slaughter-house must furnish a daily report to AVA, stating the number and type of poultry for slaughter. The licensee must also provide all Customs Clearance Permits and relevant documents to the inspectors.

Visit to a poultry slaughtering plant

2.6 The delegation visited one of the largest poultry slaughtering plants in Singapore run by the Soonly Food Processing Pte Ltd. to obtain first-hand information on live chicken slaughtering process. AVA officials were also present to answer questions from the delegation.



Discussion with executives of Soonly Food Processing Pte Ltd and officials of Agri-Food and Veterinary Authority

Soonly's poultry slaughtering plant

2.7 According to Soonly, the poultry products processed by its slaughtering plant account for about 25% of Singapore's daily demand for such products. The Company's plant is the first of its kind to comply with the HACCP standard in Singapore, and has been awarded the highest grading under the Food Factory Grading Scheme of AVA.

2.8 The Soonly slaughtering plant operates from 12 noon to 8:00 pm daily from Monday to Saturday, and handles 5 000 to 6 000 live chickens per hour.

Daily production varies from 30 000 to 40 000 slaughtered and processed chickens. The slaughtering processes are handled by 50 workers on shifts, while processes other than slaughtering, including chilling, storage, processing, packaging and distribution, are carried out by another company i.e., the KSB Distribution Pte Ltd. A qualified veterinary officer is engaged by the slaughter-house, and a total of about 150 workers are required for all processes.

2.9 Currently, Soonly offers to retailers the wholesale price of S\$3 (HK\$15) for a slaughtered and processed chicken of 1 to 1.1 kilogram. The wholesale price for chickens for chicken rice is S\$3.5 (HK\$17.5) per kilogram. On the other hand, the wholesale price for imported frozen chickens is S\$2.3 (HK\$11.5) per kilogram.

2.10 According to Soonly, the site of its slaughter-house was selected by the Singapore Government. The slaughter-house, located at Senoko Industrial Estate in the north of Singapore, is about two to three kilometres away from the nearest residential areas. The slaughter-house is also near to the Johor State of Malaysia, and the distance between the border and the slaughter-house is about 35 kilometres.

2.11 The Singapore Government leased the selected site of 4 320 sq m to KSB Distribution Pte Ltd. at a monthly rent of S\$6,000 (about HK\$30,000) for a period of 30 years. The initial capital investment for the slaughter-house was S\$3.6 million (about HK\$17.3 million), and the whole project took about two years from planning to operation.

Poultry slaughtering process

2.12 The poultry slaughtering process can be summarised as follows -

- (a) birds arriving at the slaughtering house in crates tagged with farm name and farm code must be rested for at least six hours;
- (b) after resting, birds in crates are transferred to a shackling area where the birds would be picked up from the crates and hung on the slaughter-line;
- (c) before slaughtering (including Halal slaughter which needs to be carried out by a Muslim), all live birds must be stunned or anaesthetised through a saline water bath with a current of 20 to 50 volts, depending on the bird size, for three to five seconds;
- (d) the neck of the stunned chicken is then cut with all the major vessels being sectioned and left to bleed for about three to five minutes;

- (e) the carcasses next enter into a scalding tank for one to three minutes at a temperature of 60°C;
- (f) after scalding, the carcasses go through a plucking or defeathering machine to remove the feathers;
- (g) following a re-hanging, all the carcasses are directed into another room where the vent is mechanically opened and a eviscerator removes the viscera. The viscera are placed on a small tray and directed to another room for further cleaning and processing. Liver, heart and gizzard can be salvaged, but the intestines are not allowed for sale. In accordance with AVA requirement, tags stating the date of slaughter are adhered to all carcasses;
- (h) all the carcasses must next be immersed into a spin chiller for at least 20 minutes to bring down the temperature of the carcasses. The temperature of the water in the spin chilling tank has to be maintained at 4°C to 1°C or ice can be added if required;
- (i) carcasses discharged from the spin-chilling tank are hung on the weighing line. As the line moves, they are dropped automatically into the weighting bins according to their weight; and
- (j) carcasses are packed into plastic bags and then placed in a blast chiller to bring down the temperature to 4°C for delivery.

A pictorial description of the poultry slaughtering process is in **Appendix IV**.

2.13 The delegation has noted the AVA requirement for dressed chickens not to be allowed to leave the slaughter-house unless they are cooled down to 4°C. This aims to slow the growth of harmful bacteria, which can multiply rapidly and the meat would turn bad sooner if the surrounding/ambient temperature is high. Even though the AVA requirement is to chill down the dressed birds within one and a half hours after evisceration, most of the plants' practice in Singapore is to bring down the temperature to 4°C within 30 minutes.

Monitoring by AVA

2.14 AVA inspectors conduct unannounced inspections to slaughter-houses, usually at least twice a week during the operating hours of the slaughter-house and at night during the delivery of the chilled poultry to the markets. Carcasses and offal are regularly collected from every slaughter-house to check for pathogen and drug residues. Randomly, dressed poultry that are to be delivered to the markets are also collected for testing of pathogen.

2.15 AVA does not inspect each accredited farm in Malaysia on an annual basis. However, it has a roster of audit inspections covering all the accredited farms. At present, such inspections are conducted about once every three years for broiler farms. The suspension of farms would depend on the nature of the problem. If bird flu occurs in Malaysia, the entire Malaysian State will be suspended until the State is declared clear of bird flu. Other types of suspension would be on a farm-by-farm basis. The reasons for suspension would be presence of pathogens such as Salmonella, and drug residues found in chickens. Suspension of farms can also result from deficiencies in biosecurity or poor management. For disease-type of suspensions, AVA would reinstate the farm concerned only after at least one cycle of production has been screened by the Malaysian authorities. For other types of suspensions, it would depend on how soon the farm can rectify the problems and the rectifications verified by the Malaysian authorities.

2.16 Although slaughter-houses do not have to hire veterinarians, they are encouraged to do so by AVA. Slaughter-houses that intend to export poultry to other countries are, however, required to hire a veterinarian. Most slaughter-houses in Singapore have their own Quality Control inspectors, and AVA provides training to them on inspection functions.

2.17 At present, Malaysia has two routes for exporting live poultry to Singapore but AVA only allows live poultry to be imported through the route which passes through fewer residential areas. All live poultry undergo ante-mortem inspection by AVA officers at the Tuas Checkpoint to identify whether the birds display any evidence of being affected with a disease or condition that could render the carcass unfit for human consumption, etc. About 65 to 75 trucks pass through the Tuas Checkpoint daily. They operate from 5:00 am to 1:00 pm from Monday to Thursday, and from 5:00 am to 3:00 pm on Friday and Saturday.

2.18 The delegation has noted from AVA officials that the Singapore Government has no plan to allow importation of chilled chickens from Malaysia to Singapore for the time being, until it is satisfied that the chilled chickens from Malaysia meet the most stringent quality and food safety standards necessary to safeguard public health.

Measures taken to prevent and control the outbreak of avian influenza

2.19 The delegation has noted from AVA officials that to prevent the incursion of bird flu, AVA has banned the import of live birds, poultry meat, poultry products and eggs from countries affected by bird flu, such as Indonesia and Vietnam. It has also intensified checks and surveillance on imported poultry and eggs at points of entry. Testing of imported poultry and eggs for bird flu has also been stepped up. In addition, AVA officers have stepped up checks and surveillance on local poultry slaughter-houses and poultry farms. AVA has briefed the operators of slaughter-houses and farms

on how to look out for signs of bird flu, and they are required to report immediately to AVA if bird flu is suspected. As an added precaution, local poultry farm operators have been instructed not to allow the public to visit their farms. Farms are also required to ensure that biosecurity measures such as disinfection and bird-proofing are in place.

Chapter 3 – Markets and Hawker Centres in Singapore

National Environment Agency

3.1 The delegation received a briefing by the National Environment Agency (NEA) on wet markets and hawker centres in Singapore. NEA was formed under the Ministry of the Environment and Water Resources on 1 July 2002 to focus on the implementation of environmental policies to ensure a quality environment for Singaporeans.



Presentation of souvenir to Mr Khoo Seow Poh, Director-General, Public Health, National Environment Agency

3.2 Currently, there are a total of 113 Government markets/hawker centres in Singapore, housing more than 15 000 stalls. The management of all Government markets/hawker centres was consolidated under NEA on 1 April 2004.

3.3 A market/hawker centre typically comprises two sections, namely cooked food section and market produce section. The stalls in the cooked food section are designated for the sale of ready-to-eat food and drinks. The stalls in the market produce section are designated for the sale of market produce and sundry goods. About one-third of the stalls in a market/hawker centre are cooked food stalls.

Legislation

3.4 All stallholders and food handlers are required to obtain a licence to operate a stall under the Environmental Public Health Act and the Environmental Public Health (Food Hygiene) Regulations and observe all hygiene requirements. All apparatus, appliances, utensils, crockery, etc. must be clean and in good condition at all times, and handling of any cooked food

must be with clean gloves, a clean fork, tong, scoop or other suitable implement/utensil.

Management of hawkers

3.5 Over the years, a series of measures have been implemented by the Singapore Government to ensure food safety and good hygiene standards in markets/hawker centres. These are as follows -

- (a) since 1990, all food handlers are required to attend basic food hygiene course and pass written test, be vaccinated against typhoid and undergo tuberculosis screening for those age 45 and above;
- (b) a points demerit system was introduced in September 1987 to impose penalties for violating public health laws. A licence will be suspended if the licensee accumulates 12 points or more over a one-year period. A licence may be revoked if the offender is recalcitrant;
- (c) a grading system for food stalls was introduced in June 1997 to provide consumers with an informed choice on the hygiene condition of the stalls they patronise. The four grades comprise Grade A (Excellent), Grade B (Good), Grade C (Average) and Grade D (Below Average);
- (d) slaughtering of poultry in wet markets was prohibited in 1992; and
- (e) a cold chain system was introduced in 1999/2000 whereby meat stallholders were required by law to equip their stalls with display chillers for the sale of pork, poultry, beef and mutton. Before the system was introduced, carcasses were delivered in open trucks and exposed to heat and dust and left unattended and exposed to vermin in the market before the butchers arrived for business. Both the nutritional and the bacteriological quality of warm meat deteriorated rapidly when exposed to ambient temperature. In 1999/2000, all meat stallholders were served with notice to equip their stalls with display chillers. They were given the options of either continuing with the meat retail business and implementing the chilled meat retail system in six months or changing trade to other market products.

Hawker Centres Upgrading Programme

3.6 Many hawker centres in Singapore were built over 20 years ago to resite street hawkers. Hawker centres are unique to Singapore and form an integral part of Singapore's lifestyle. Its authentic style and variety of food appeals not only to Singaporeans, but foreigners and tourists alike. A decision was, therefore, made for hawker centres to be preserved and upgraded.

3.7 The Hawker Centres Upgrading Programme (HUP) was launched in February 2001 at an estimated cost of S\$420 million to upgrade markets/hawker centres over a period of 10 years. The upgrading involves re-tiling, replacement of tables and stools, replacement of water, sewer/sanitary pipes, re-wiring, re-roofing, improvement to ventilation, provision/replacement of exhaust flue system and upgrading of toilets, transit bin centres. In some cases, reconfiguration or rebuilding of markets/hawker centers are also involved. To date, 71 centres have been selected for HUP and 44 of them have been completed.

Visit to wet markets and supermarkets

3.8 The delegation visited the Redhill Wet Market, a market/hawker centre which was upgraded under the HUP in 2005. The Redhill Wet Market is located within a public housing estate and comprises a cooked food section and a market produce section. Members are impressed by the high hygiene standard and cleanliness of the Market. The floor is dry and clean and all raw meats are stored in display chillers; siu mei (roast meat) stallholders are allowed to prepare siu mei behind their stalls. The delegation later visited an "old style" Government wet market, the Tekka Wet Market, where the hygiene standard and cleanliness compared less favourably with that of the Redhill Wet Market. The stall premises were less orderly, the floor was wet, and some poultry stallholders did not display the chickens in the display chillers.



Stalls in Redhill Wet Market

3.9 The delegation also visited an “old style” supermarket, the Sheng Siong Supermarket, and an up-market supermarket, the Paragon Market Place Supermarket, and received a briefing by executives of the Cold Storage Group which run the Paragon Market Place Supermarket. The Cold Storage Group impressed upon the delegation its adoption of a fully integrated cold chain system from delivery to store to ensure the safety of perishable products.

Chapter 4 – Poultry Slaughtering in Malaysia

4.1 The delegation visited a poultry slaughtering plant in Malaysia run by Lay Hong Berhad to study the use of air-chilled technology, as opposed to the water-chilled technology used in Singapore, to chill dressed chickens.

Lay Hong's poultry slaughtering plant

4.2 According to Lay Hong, its poultry slaughtering plant can handle 6 000 chickens per hour and one shift of eight hours is operated to process 48 000 chickens. About 120 workers are involved in the slaughtering process.

4.3 Currently, Lay Hong offers to retailers the wholesale price of MYR6.1 (HK\$12.2) for a slaughtered and processed chicken of 1 to 1.1 kilogram.



The Lay Hong Poultry Processing Plant

Benefits of using air-chilled technology in poultry slaughtering

4.4 According to the company, hanging dressed chickens in cold chamber for chilling, instead of soaking them in a vat of cold, chlorinated water, is the mandatory process for cooling poultry in the European Union. The benefits of the air-chilled process are -

- (a) hazard of cross contamination between dressed poultry is reduced to an absolute minimum, as the dressed poultry are not dipped in a common bath of ice water where they can be subject to high levels of cross contamination;
- (b) air-chilled chickens have better meat texture in that the air-chilling method locks in the natural flavours and juices of chickens, and amino acid in the chicken meat remains;
- (c) air-chilled chickens contain no retained water, as opposed to some 8% to 12% in water-chilled chickens. Consumers get what they pay for because chickens are sold by weight; and
- (d) without additional water content in the chickens, there is no watery, foul-smelling or bloody discharge inside the chicken packaging and saves cooking time.



Hanging of dressed chicken for air-chilling

Regulation of poultry processing plant in Malaysia

4.5 Similar to Singapore, all poultry slaughtering plants in Malaysia are privately-run. The delegation notes that Malaysia currently has no legislation regulating the operation of poultry slaughtering plants, but the country does have meat inspection rules with which poultry slaughtering plants must comply. Slaughtering of chickens is still allowed in wet markets. Although the

Malaysia Government has no plan to prohibit slaughtering of chickens in wet markets, it had prohibited such slaughtering in areas where there were occurrences of avian influenza outbreak.

Chapter 5 – Observations

General

5.1 The delegation is of the view that the information obtained during the visit on poultry slaughtering and food safety measures has provided useful reference for Hong Kong. The observations of the delegation are given in the following paragraphs.

Poultry slaughtering process

5.2 The delegation is impressed by the advanced technology adopted by the two poultry slaughtering plants which they visited in Singapore and Kuala Lumpur. The delegation finds both the water-chilled and air-chilled technologies in processing carcasses impressive, and the latter technology more advanced. The slaughtering process reduces human contamination as a result of the minimal physical contact. Particularly noteworthy is the attention given to the hygienic principles in design implemented by these plants in segregating “dirty” and “clean” operations, and the requirement for workers to don protective clothing and to undergo hand and boot wash when entering the processing area.

5.3 The delegation is highly impressed by the stringent monitoring by the AVA in Singapore over the regulation of the overall operation and the slaughtering process, and over the requirement for poultry slaughter-houses to comply with the relevant legislation. AVA has also taken active precautionary measures to prevent and control the outbreak of avian influenza in Singapore.

5.4 The delegation notes that the dressed chickens should be chilled down to 4°C after they have been shackled in high temperature, and the practice in Singapore is to bring down the temperature of the carcasses within 30 minutes after shackling. As the Hong Kong Special Administrative Region Government has proposed that freshly slaughtered or “warm” chickens would be delivered to customers within two hours in Hong Kong, the delegation has doubt over the viability of this proposal as bacteria can multiply rapidly.

Poultry slaughtering plants

5.5 The delegation has noted that although the slaughtering of live chickens in Singapore has to be carried out in a poultry slaughtering plant licensed by the AVA, such slaughtering is not handled centrally by one single plant. There are 10 plants in different locations in Singapore for slaughtering live chickens.

5.6 To minimise environmental impact, the delegation notes that the poultry slaughtering plants are located away from residential areas and the vehicles transporting live poultry pass through as few residential areas as possible.

5.7 As regards the viability of the poultry slaughtering plants, the delegation has noted that the banning of chilled chickens from Malaysia to Singapore is one of the main reasons attributing to their viability in Singapore. The delegation has also noted that the major competition faced by suppliers of chilled chickens in Singapore is from frozen chickens.

Markets/hawker centres in Singapore

5.8 The delegation has found the measures adopted by the NEA in Singapore very effective in ensuring food safety at the retail end. These include the requirement for meat stallholders to equip their stalls with display chillers for the sale of pork, poultry, beef and mutton, for all food handlers to attend basic food hygiene course and pass examination, be vaccinated against typhoid, and go for tuberculosis screening for those age 45 and above, and the adoption of a grading system to let the public know the hygiene standards of the cooked food stalls they patronise.

5.9 The delegation also finds the hygiene standards of markets/hawker centres they visited to be of a very high standard. This is attributed to the proactive health education and dialogue which the Singapore Government has conducted to raise the awareness of the public and the trade about the importance of environmental hygiene and food safety. Members consider particularly commendable the Hawker Centres Upgrading Programme launched by the NEA in 2001 at an estimated cost of S\$420 million to upgrade all Government markets/hawker centres over a period of 10 years. In addition, the arrangement for stallholders in Government markets to be allowed to prepare siu mei at their stalls is a testament of the flexible approach adopted by the NEA to meet the demand of consumers.

Conclusion

5.10 The delegation has found the visit to Singapore and Kuala Lumpur very enlightening and useful. The detailed briefings and exchange of views between the delegation and the officials and executives in Singapore and Kuala Lumpur have provided useful reference when Members consider the Government's proposal for the setting up of a central poultry slaughtering system in Hong Kong.

Panel on Food Safety and Environmental Hygiene

**Duty visit to Singapore and Kuala Lumpur
(25 to 29 July 2006)**

Visit programme

Tuesday, 25 July 2006	
Afternoon	Arrival in Singapore
Wednesday, 26 July 2006	
9:00 am - 10:30 am	<p>Meeting with National Environment Agency</p> <ul style="list-style-type: none"> - Briefing on “Markets and Hawker Centres in Singapore” by Ms Serina Goh, Senior Manager, Hawkers Department - Discussion
11:00 am - 12:30 pm	<ul style="list-style-type: none"> - Tour of Redhill Wet Market
2:30 pm - 4:30 pm	<p>Visit to Soonly Food Processing Pte Ltd</p> <ul style="list-style-type: none"> - Briefing on the poultry slaughtering process in the plant by Mr Chew Keng Wah, Chief Operating Officer - Tour of Soonly Food Processing Pte Ltd
Thursday, 27 July 2006	
3:00 pm - 3:45 pm	<p>Meeting with the Singapore – Hong Kong Parliamentary Friendship Group</p>
7:30 pm – 9:30 pm	<p>Dinner hosted by Mr K K LAM, Director, Hong Kong Economic and Trade Office, Singapore</p>

Friday, 28 July 2006

9:00 am - 12:00 noon

Visit to Tekka Wet Market/Sheng Siong Supermarket

Visit to Paragon Market Place Supermarket

- Briefing on the handling of chilled and frozen chicken by senior executives of the supermarket

Evening

Departure for Kuala Lumpur

Saturday, 29 July 2006

7:00 am - 10:30 am

Visit to Lay Hong Poultry Processing Plant

- Presentation on the poultry slaughtering process in the plant and the importance of air chill processing by Mr Yap Chor How, Marketing Director
- tour of Lay Hong Poultry Processing Plant

Afternoon

Departure for Hong Kong

**List of the Government officials and
representatives with whom the delegation met**

Singapore

National Environment Agency

Mr Khoo Seow Poh, Director-General, Public Health

Ms Chan Wai San, Head, Hawkers Department

Ms Serina Goh, Senior Manager, Hawkers Department

Ms Mary Chin, Senior Executive, Corporate Communications

Mr Alban Tng, Environmental Health Officer

Soonly Food Processing Pte Ltd

Mr Chew Ghim Bok, Chief Executive Officer

Mr Chew Keng Wah, Chief Operating Officer

Mr Steven Tan Soon Teck, Deputy General Manager

Agri-Food and Veterinary Authority

Mr Clement Fernandez, Head, Poultry Slaughterhouses Section

Mr Patrick Bay Chuan Kiat, Food Safety Officer, Food and Veterinary Administration

Singapore-Hong Kong Parliamentary Friendship Group (SHKPFG)

Mr Chan Soo Sen, MP, Member of SHKPFG

Mr Seng Han Thong, MP, Member of SHKPFG

Mr Teo Ser Luck, MP, Member of SHKPFG

Mr Lee Hui Huan, Secretary, SHKPFG

Paragon Market Place Supermarket

Mr KC Tham, Manager

Mr Winstone Chee, Fresh Food Operations Manager

Mr Peter Lee, Meat Category Manager

Ms Joan Lee, Food Safety Manager

Kuala Lumpur

Lay Hong Poultry Processing Plant

Mr Yap Hoong Chai, Group Managing Director

Mr Yap Chor How, Marketing Director

Mr Yeap Weng Hong, Executive Director

Mr Robert Chee, National Sales Manager (Processed Chicken and Chicken Products)

Reference materials obtained during the visit

Singapore

Powerpoint materials on “Markets and Hawker Centres in Singapore” provided by National Environment Agency

Information pamphlet on Elite KSB Holdings, the parent company of Soonly Food Processing Pte Ltd

Kuala Lumpur

Powerpoint materials on poultry slaughtering process provided by Lay Hong Berhad, the parent company of Lay Hong Poultry Processing Plant

Pictorial description of poultry slaughtering process

Process – 1



..... live bird receiving area

Process – 2



...transfer of live birds to shackling area

Process – 3



...shackling

Process - 4



...stunning

Process - 5



...neck cutting

Process - 6



...bleeding

Process - 7



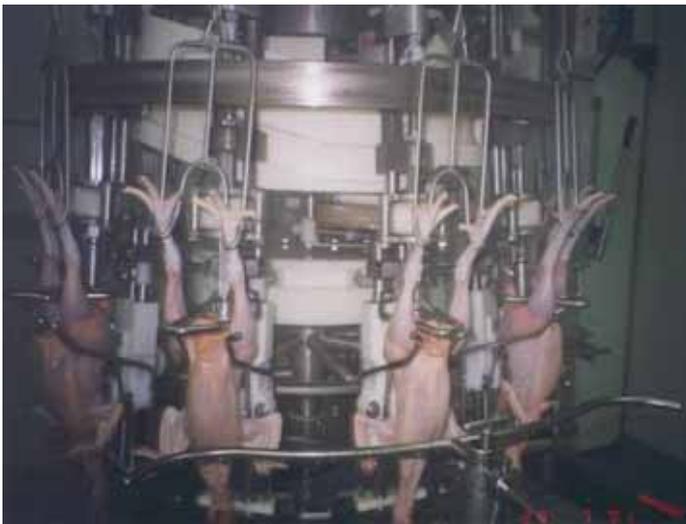
...scalding

Process - 8



Plucking / defeathering...

Process - 9



on-line evisceration

Process - 10



...harvesting of giblets

Process - 11



...spin-chilling

Process - 12



auto weighing & sorting...

Process - 13



packing...

Process - 14



blast chilling....

Process - 15



...delivery

Process - 16



...retail display chillers