

## **MEASURES TO CONTROL FOOT AND MOUTH DISEASE**

### **INTRODUCTION**

This paper briefs Members on measures to control foot and mouth disease (FMD) in Hong Kong.

### **FOOT AND MOUTH DISEASE**

2. FMD is a highly contagious viral disease affecting only cloven-hoofed animals such as pigs, cattle, sheep and goats. It is transmissible from animals to animals through direct contact and air. Infected animals develop fever and blisters in their mouths and on their feet. About 80% of animals contracting this disease are expected to recover if provided with proper care but the disease may be fatal in young animals.

3. FMD is not a public health hazard. It should not be confused with the human disease called “hand, foot and mouth disease” which is caused by different viruses. Food-borne transmission of FMD is extremely unlikely. Consumption of properly cooked pork poses no risk to human health as the virus is readily destroyed through normal cooking. The disease rarely occurs in humans, and if it does, the infection is usually mild and transient. The mode of infection is generally limited to occupational exposure. People who have frequent contacts with infected animals may minimize the risk of infection by maintaining good personal hygiene (e.g. hand-washing and face-washing) and by wearing appropriate clothing (e.g. protective gloves).

### **FMD IN HONG KONG**

4. FMD is endemic in Hong Kong and widespread in some

South East Asian countries. The disease was first reported in Hong Kong in the 1950's and occurs every year, mainly during the cooler months, viz. from November to March.

5. There is no evidence to suggest that FMD is becoming more serious than before. Between April 2000 and February 2001, we confirmed the presence of FMD on 20 local pig farms (out of a total of 330 pig farms with about 290,000 pigs) where 3,282 pigs contracted the disease and 574 pigs died. The number of confirmed FMD cases on local farms in the past three years is set out in the Annex.

6. Hong Kong and other countries have an obligation to provide information to Office International des Epizooties (OIE), the world authority on animal disease, on a regular basis. These data are provided so that trading partners can assess whether FMD occurs in a specific place/country and the type of FMD virus present. We report all confirmed cases of FMD in Hong Kong to OIE. However, under-reporting of FMD is a common problem throughout the South East Asian region.

7. In Hong Kong, we require farmers to report FMD to us under the Public Health (Animals and Birds) Regulations (Cap 139 Sub Leg A) but we recognize that under-reporting of FMD is common. We have therefore established a serum bank containing blood samples collected from animals at slaughter. This provides more information on the prevalence of FMD and other animal diseases. Some 450 samples were collected from local pigs at the initial stage and thereafter an additional 300 samples are taken each quarter and the testing is being done in collaboration with international laboratories and organizations such as Food and Agriculture Organization of United Nations. In addition, we will conduct surveys with farmers, develop intelligence sources, step up farm visits and work with the livestock industry to encourage better reporting. We will continue to monitor FMD trends closely.

## **MEASURES TO CONTROL FMD**

8. Throughout the world, FMD control programmes are based either on eradication or vaccination. Eradication involves the compulsory

destruction of all infected animals and any livestock suspected of contacting the infected animals. Strict movement controls on livestock are imposed and all objects moving out of infected areas must be thoroughly disinfected. Overseas countries newly infected with FMD such as the United Kingdom adopt eradication as they have to regain the confidence of their export markets and their local veterinary authorities consider the risk of reintroduction of the virus from other countries to be extremely small. However, we do not consider eradication an effective means for Hong Kong to achieve a FMD-free status as this would not be successful, given that there is high probability of reinfection through transmission from other South East Asian countries.

9. In Hong Kong, control programmes for FMD are based on vaccination, coupled with farm inspection, farm hygiene measures and import control on livestock. Effective vaccines are available and a full course of vaccination for a pig costs around \$15 to \$20. We have been educating pig farmers to vaccinate their pigs as it is in their interest to do so. We also work closely with international experts in FMD and major vaccine manufacturers to help pig farmers to have access to the best available FMD control programmes and properly formulated vaccines. In 2000, we conducted applied research and provided all pig farmers with the recommended vaccination programmes prior to the FMD season. We will also provide training to them to promote further proper vaccination technique.

10. As a regular programme, pig farms are inspected at least once every six months. Additional inspections are arranged if there is any indication that an outbreak has happened. We fully investigate all known cases of FMD to find out why the disease occurred, to advise farmers on the prevention and control of the disease and to check if new strains of virus are involved. Besides, we also advise farmers to maintain high standards of hygiene on their farms, to minimize the number of visitors and to require anyone allowed to enter a farm to wear protective clothing and to have his or her footwear disinfected.

11. To prevent the entry of different strains of FMD virus into Hong Kong, we suspend import of livestock from places where FMD outbreaks occur. Currently, we prohibit import of livestock from the

United Kingdom, France, Japan, South Korea, Taiwan, and all South East Asian countries with FMD. We consider that import of meat from infected countries represents a very low risk to animal health because swill feeding to livestock is rarely practised in Hong Kong nowadays. Nevertheless, we are considering the amendments to the Public Health (Animals and Birds) Ordinance (Cap 139) to extend the current import control from livestock to animal products and animal feed, so that where necessary we could have legal power to suspend import of such products to Hong Kong for the purpose of protection of animal health.

12. We also keep close contacts with relevant international organizations to acquire updated knowledge on FMD and the latest development of control measures for the disease. OIE has a special sub-commission on FMD in South East Asia to co-ordinate control measures for FMD and we actively participate in the work of this sub-commission.

13. In slaughterhouses, Food and Environmental Hygiene Department (FEHD) carries out ante-mortem examination of pigs to detect diseases. Pigs with signs of FMD are slaughtered in isolation. The infected parts are discarded and condemned and, for serious cases, total condemnation of the pigs is exercised. FEHD will strengthen the control of FMD at slaughterhouses through enhanced disinfection of the lairages, ante-mortem examination and meat inspection.

## **COLLECTION AND DISPOSAL OF PIG CARCASSES**

14. At present, FEHD employs a contractor to collect pig carcasses at 78 designated collection points in the New Territories. The numbers of pig carcasses collected were 69,326 and 79,341 in 1998/99 and 1999/2000 respectively. There has been no significant increase in the number of carcasses collected so far in this financial year which stands at 69,555 up till end of February 2001. Nevertheless, FEHD has asked the contractor to arrange extra collection of pig carcasses dumped at roadside/hillside illegally.

## **CONCLUSION**

15. FMD is not a public health hazard and is extremely unlikely to be transmissible to humans through consumption of pork. Nevertheless, we will continue to monitor the situation closely and to carry out necessary measures to control the disease more effectively.

## Annex

### Number of Confirmed FMD Cases on Local Farms

<b>Year</b>	<b>Number of farms</b>	<b>Number of infected pigs</b>	<b>Number of dead pigs</b>
Apr 1998 - Mar 1999	16	12,093	1,725
Apr 1999 - Mar 2000	11	3,354	370
Apr 2000 - Feb 2001 (11 months)	20	3,282	574