ASF in MALAYSIA: Biosecurity Approach

Current ASF situation

The first reported outbreak of ASF in Malaysia was submitted to OIE through immediate notification on 19 Feb 2021 Malaysia. The outbreak was occurred in Sabah, a state located at east Malaysia situated at Borneo Island, which is separated about 1,011 miles by South China Sea to Peninsular Malaysia. From the epidemiological investigation conducted by Department of Veterinary Services, Sabah, the ASF outbreak could have occurred sometimes in early February 2021. Up to now, ASF has spread to the state of Sarawak in July 2021, then to 6 states in Peninsular Malaysia started in December 2021 (Figure 1). The time line of ASF cases in Malaysia is shown in Figure 2. Temporal and spatial distribution of ASF cases in Malaysia are shown in Figure 3 & 4.

Figure 1. ASF spread in Malaysia

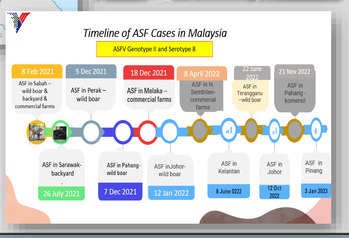

Figure 2. Timeline of ASF cases in Malaysia

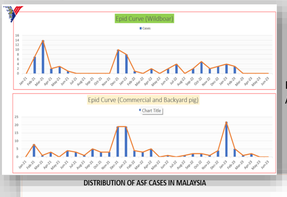

Figure 3. Temporal distribution of ASF in Malaysia

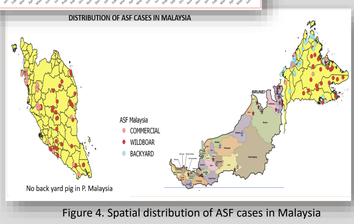

Figure 4. Spatial distribution of ASF cases in Malaysia

Overview of swine production

The pig farming industry in Malaysia has more than 1.75 million heads of pigs reared in 614 farms in year 2020. There are limited numbers of backyard pig farms in Malaysia and most of the them are located in East Malaysia in the state of Sabah and Sarawak (Figure 5). After ASF hit Malaysia in 2021, the SPP is currently reduce about 10% to 1.57 million heads. 91 out of 614 farms (14.8%) in multiple states were infected with ASFV (Table 1).

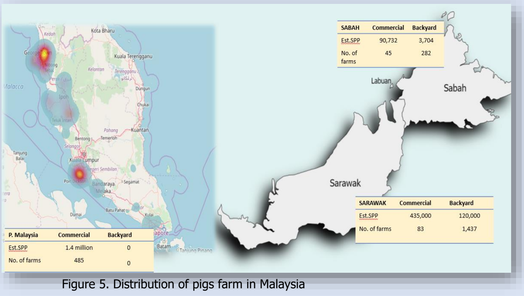

Figure 5. Distribution of pigs farm in Malaysia

State	Pig population	No. of farms	No. of infected farms	No. of Pig destroyed
Kedah	2,071	2		
P. Pinang	267,348	124	21 (17%)	26,542
Perak	527,201	91	17 (19%)	19,192
Selangor	227,840	119		
N.Sembilan	2,040	1	(1)	275
Johor	209,500	42	3	2,534
Melaka	0	35	30 (86%)	19,369
Pahang	0		1	1,352
Sabah	89,469	43	12 (28%)	4,942
Sarawak	245,451	34	6 (18%)	??
Jumlah	**1,570,920**	**491**	**91**	**74,206**

Table 1. Pig population in Malaysia by states

National regulations on biosecurity

- ✓ The pig farming industry is highly regulated following the occurrence of Nipah virus outbreak in 1998/1999.
- ✓ All parties are obliged to report any suspected animal disease occurrence under the Animal Act 1953.
- ✓ Swill feeding to pigs are prohibited.
- ✓ Temporary import restrictions of pigs and pork-related products from ASFV affected countries.
- ✓ Prohibit tourists from ASF positive countries on bringing in any pork-based products by hand-carry or luggage.
- ✓ In flight announcements to warn the tourists not to bring any pork and pork based products.
- ✓ Ongoing active and passive surveillance in commercial and backyard pigs, and wild boar (Figure 6 & 7).

Figure 7: Surveillance in commercial farms

Figure 8. Surveillance in wild boar

Ongoing activities to improve biosecurity

- ✓ Farmers are urge to embark in the compartmentalization system for farming for better biosecurity measures and disease monitoring.
- ✓ State government to restructure pig industry to the Modern Pig Farming (MPF) method (closed house system).
- ✓ Continuous public awareness campaigns.

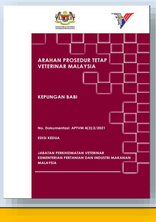

Figure 9. Pig compartment in Sarawak, Malaysia

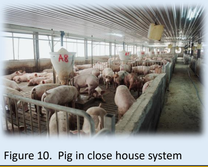

Figure 10. Pig in close house system

Achievements and lessons learned

- ✓ Prevention and early detection through surveillance in domestic (commercial and backyard) and wild boar pigs or disease reporting is paramount in African swine fever (ASF) control.
- ✓ A fair compensation to the ASF affected farms is also crucial in order to get the good cooperation and motivate farmers to report the disease occurrence to the authority.
- ✓ Consolidated contingency plan with interagency collaboration contribute to the speed and effectiveness of control ASF.
- ✓ Quarantine and traceability of pig and pork movement must be conducted promptly and effectively to reduce the risk of further spread of the disease.
- ✓ Stamping out control method is effective but is not practical when disease spread to too many farms.