Department for Environment, Food and Rural Affairs
Animal and Plant Health Agency
Advice Services - International Disease Monitoring

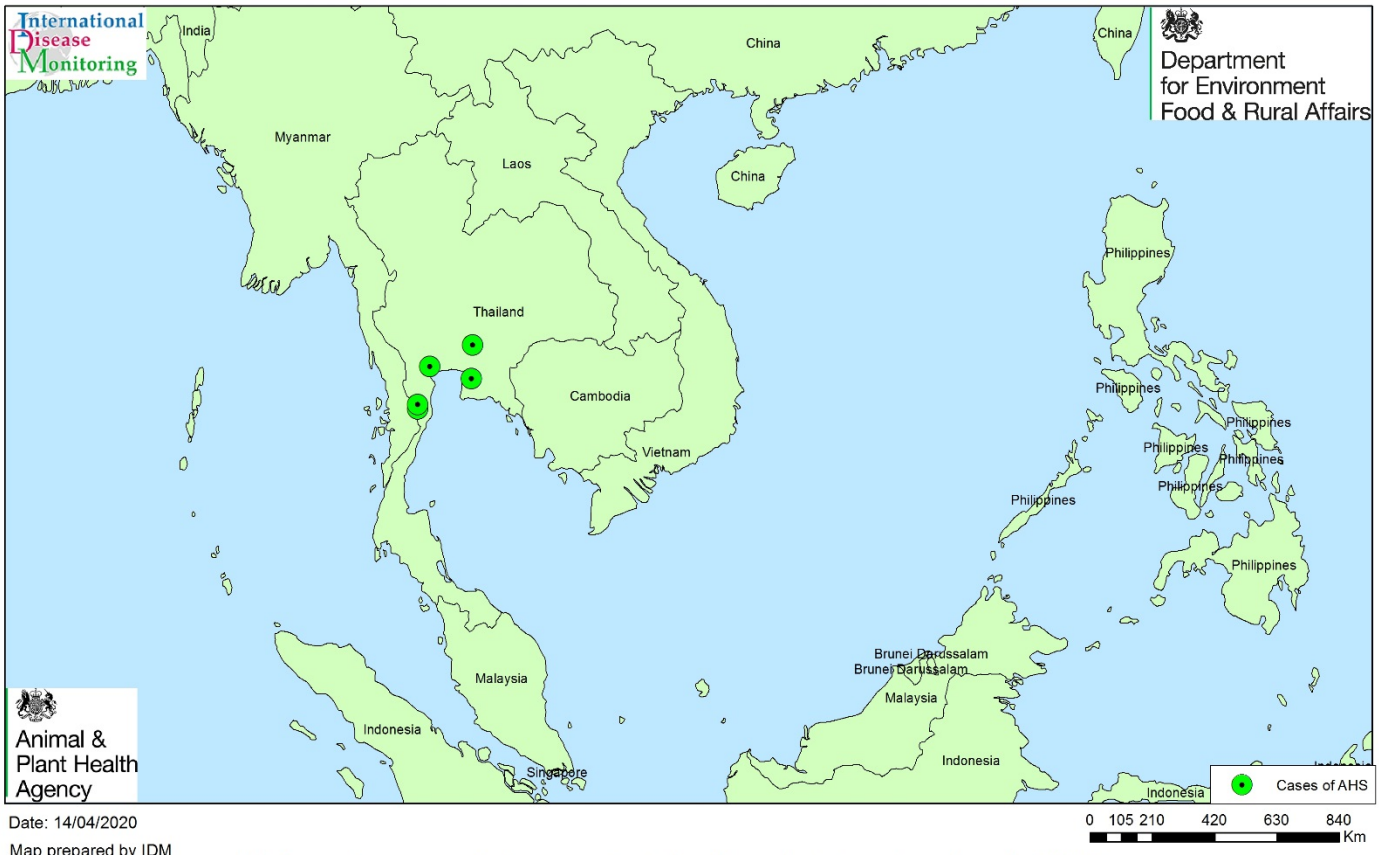
Updated Situation Assessment

# African Horse Sickness in Thailand # 2

14 April 2020 Ref: VITT/1200 African Horse Sickness, Thailand

## Disease report

Since our last report on 31 March (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/878255/poa-ahs-thailand-2020.pdf), Thailand has reported four new outbreaks of African Horse Sickness (AHS) in four new provinces, two on 3 April and two on 10 April.




African horse sickness in Thailand, March - April 2020

## Situation assessment

Since the first outbreak was reported in Pak Chong, in the Nakhon Ratchasima province, a total of 57 horses are officially reported to have died in this area. Unofficial sources report these to be race horses.

On 3 April, two new outbreaks were reported in two new provinces in Thailand (OIE, 2020). The first of these was confirmed in Hua Hin, in the Prachuap Kiri Khan province, near the Myanmar and Malaysian borders, following the deaths of ten horses. The second was in stabled horses in Ko Chan, in the Chon Buri province, to the south east of Bangkok, with the death of five out of 33 horses. On 10 April, another two outbreaks were reported in a further two provinces. In Damnoen Saduak, in the province of Ratchaburi, there have been five cases and three deaths reported. The most recent outbreak was in Cha-am, in the neighbouring province of Phetchaburi, where two horses were infected and both died. These new outbreaks are a significant distance from the first outbreak in Pak Chong, and suggest that the virus may have been spread through movement of horses within Thailand, likely before the first cases were detected. Unofficial, unconfirmed media reports suggest that the disease may be rapidly spreading more widely across the country (Bangkok Post, 2020). All movements of equids within 150km of the outbreaks have been restricted.

The source of virus is not currently known. There are at least nine different serotypes of AHS, with different geographical distribution, therefore strain identification may indicate where the virus originated. Four samples (equine blood and serum) were sent to the Pirbright Institute on 31 March. These samples were taken from the first reported outbreak in Pak Chong. Following serotyping, all four samples were confirmed as AHS-1. This serotype has not before been identified in outbreaks outside of Africa. The Department of Livestock Development in Thailand will be sending samples from other affected areas to OIE reference laboratories (OIE, 2020).

It is uncertain what the longer term impact of these outbreaks in a previously AHS-free country will be. Previously, the emergence of AHS-9 caused a large epidemic, when rapid spread was seen across the Middle East and into southwest Asia, where it persisted in India from 1959 to 1961. This outbreak caused the deaths of over 300,000 equids, and was finally halted through vaccination, vector control and the nominal numbers of remaining susceptible species as a result of the disease (Carpenter et al., 2017).

Thailand has OIE official free status, and was approved to export registered horses to Europe as a Group G country and re-entry following temporary admission for competitions. The export certificate requires that entry is only allowed from areas that are free of AHS. Certificates for Thailand have been suspended under Implementing Regulation (EU) 2020/485.

## Conclusion

The most recent data, recorded in 2018 by the FAO, gives the number of horses in Thailand as 6,069 (FAO, 2020). Donkeys are also an important species during AHS outbreaks, as they show less severe clinical signs and so may play a role in spread. As of 2018, Thailand is reported to have 30 donkeys, although the locations are not known (FAO, 2020) and these data may be an underestimate. The impact of disease in a country previously free of AHS, will have consequences for export and sale of horses for racing. The most effective measures for lowering the risk of AHSV spread are to reduce equine movement, reduce the likelihood of insect bites and to use vaccines.

*Culicoides* breed in moist and muddy areas with organic enrichment, and these areas can be very large, so spraying of areas with insecticides outside of stables is not advised. High quality stables with minimal entry points for *Culicoides* and protected with insecticide netting can be effective in reducing risk of AHSV transmission. Horses can also be treated with repellents, that reduce the number of infected midges biting horses, and insecticides, that kill *Culicoides*, preventing onwards transmission from infected horses. These products are sometimes used in combination to reduce the risk of both initial infection and onwards transmission of AHSV. Polyvalent live attenuated vaccines for AHSV are commercially available and may be used in the event of spread. In addition, limiting the time that horses are outside to avoid peak times of midge activity (usually dawn and dusk) is recommended to reduce the biting rate.

The import requirements for equidae into the EU do not allow the direct movement from countries where AHS is endemic. Therefore, the risk through legal trade from these areas is considered to be negligible. When AHS jumps to a new region outside the endemic areas, because case fatality is usually high in a naïve population, we would expect reporting to be swift and any recent imports to be notified to the EU immediately.

African Horse Sickness (AHS) is a vector-borne viral disease, affecting all species of equidae; it has never occurred in the UK and the UK has OIE official free status. AHS is transmitted by certain species of midges, most commonly *Culicoides imicola* (which is usually restricted to the southern parts of Europe, but otherwise found throughout Africa and Asia). Within the UK, *C.obsoletus* is a potential vector, having been implicated in transmission of AHSV in Spain (Mellor and Hamblin, 2004).

The likelihood of importing a horse incubating AHS from an area which has recently reported disease and which is approved for export into the UK is therefore considered very low. The geographical distribution of AHS in SE Asia is currently unknown and epidemiological investigations may be hindered by the strain on veterinary services caused by African swine fever and the COVID-19 restrictions. We will review the situation when more information becomes known.

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## References

All disease reports are available from the OIE WAHIS database.

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