Western Cape Government
Agriculture

Animal Health
Veterinary Services

Situation Report: African horse sickness in Cederberg Local Municipality: 7 June 2021

Introduction

On the 14th of April 2021, an outbreak of African horse sickness (AHS) was confirmed in the Cederberg local municipality. The outbreak occurred in the AHS protection zone which is the outer zone of the AHS controlled area of South Africa. The outbreak was identified on a farm east of the Pakhuis pass, approximately 20 km from Clanwilliam. The first public situation report details the control measures taken to curb the spread of the virus. The second public situation report details the progress of the outbreak as of 5 May 2021.

Response and current situation

To date there have been a total of 37 confirmed cases with 20 deaths. Five new cases have been reported on a further three farms (Figure 1), bringing the total number of infected properties to four. 72 different equids have been sampled on 15 different farms. Laboratory results have confirmed 31 lab positive AHS cases. Over and above AHS testing, 57 equids were tested for a closely related Equine encephalosis virus (EEV). This virus is also a midge transmitted virus of the same family as AHS virus. 18 equines have tested positive for EEV.

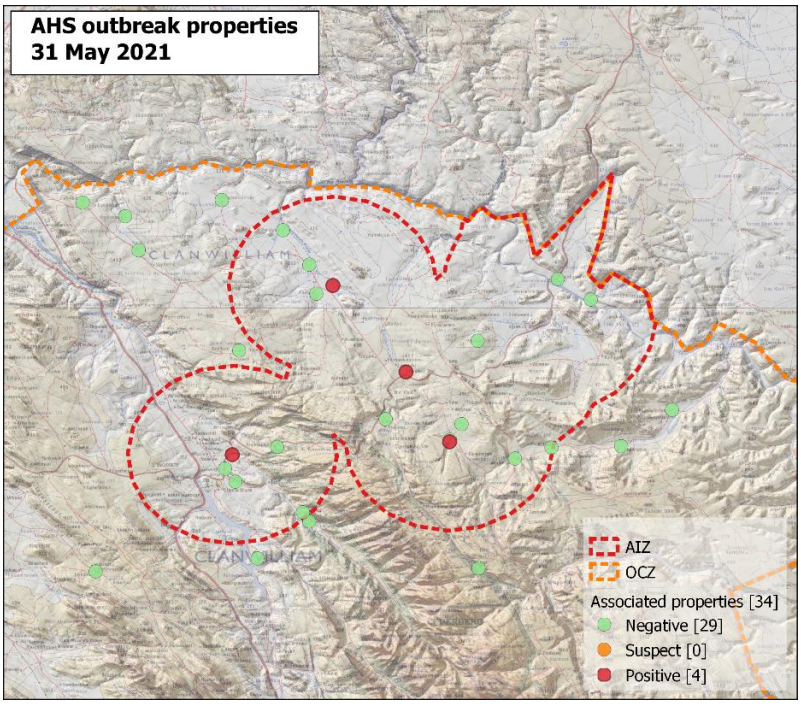

Figure 1: Map of the primary outbreak area showing the four infected properties in red and negative properties in green. The active investigation zone, amended in early May to include all infected properties and a 10km zone around them, is shown with a red dashed line. The orange dashed line indicates the outbreak control zone where movement restrictions are still in place.

Clinical surveillance and census visits played a critical role in the outbreak response. This has been particularly true in this outbreak where the clinical severity of cases has been so evident. In total 33 holdings have been visited by officials and 278 individual equines have been associated in the investigation, with 241 equines classified as negative based on laboratory or clinical surveillance. Trace-forward investigations relating to movement from the outbreak control zone (OCZ) into the AHS surveillance and/or AHS free zone were completed, and no known movements of this nature took place after 1 March 2021.

The morbidity rate in the active investigation zone (AIZ) is currently 16.3% with a mortality rate of 9.69% and a case fatality rate of 59.46%. The AHS virus type has not been identified yet. Cases have decreased in recent weeks with three having occurred since 6 May 2021 (Figure 2).

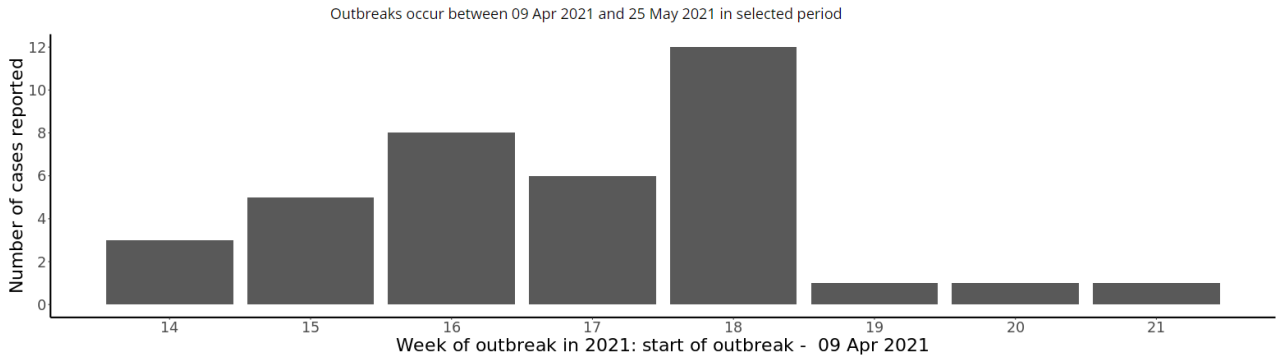

Figure 2: Cases over time by week of outbreak in 2021. Cases have dropped sharply after the spike ending 6 May 2021 (week 18).

Discussion

The origin of the virus on the affected property is not known. Trace back investigation to legal movements have shown that there was unlikely to be entry of AHS virus through this mechanism. Investigations into the source are ongoing and will include establishing possibility of wind dispersal of infected midges. Knowing the type of the virus will also assist in this part of the investigation. The lack of typing positive results to date makes it very unlikely that this virus is a live attenuated vaccine re-assorted or reverted to virulence strain, since the test that is used for typing would detect live attenuated vaccine strains.

The location of the outbreak and decrease in temperatures is likely to have facilitated lack of spread and decrease in cases since early May. The Cederberg mountains to the west of the affected farm form a formidable barrier to spread of the virus by midges in a westerly and south westerly direction (Figure 3). Equine populations are low in the outbreak area and even more so to the north and north east, so spread here is also not likely to occur easily. There are pockets of donkey, zebra, and horse populations to the south of the index property (Wuppertal is in that area about 28km to the south). Even if spread were to occur to the south, further spread will be hampered again by the mountains that enclose that region.

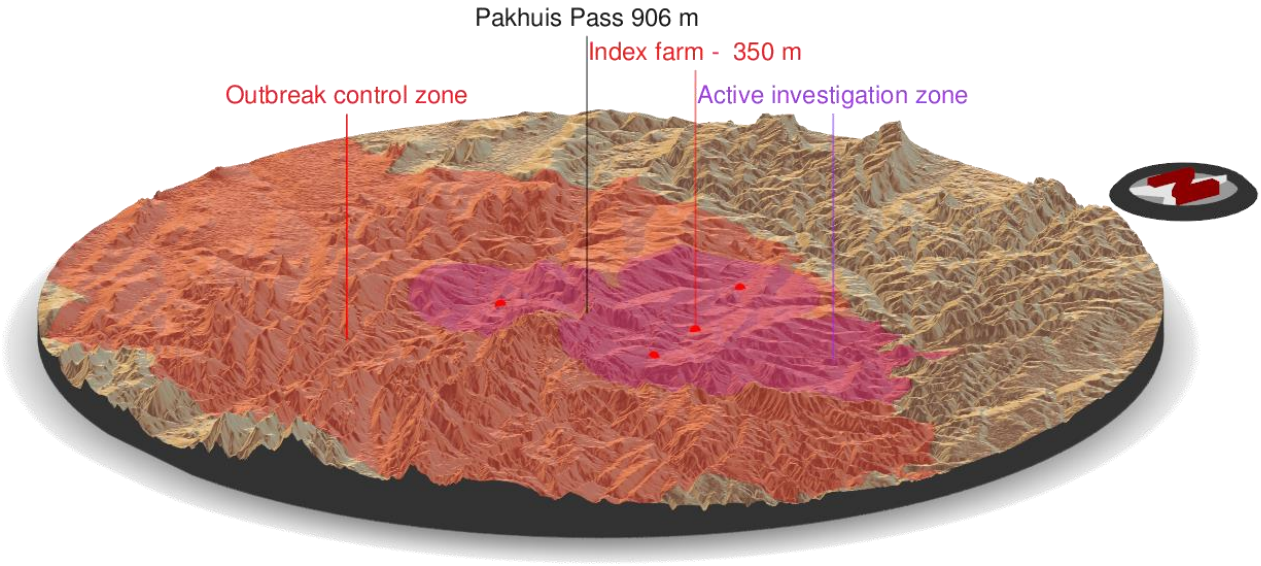

Figure 3: Topographical view of the location of the infected properties in relation to the Cederberg mountains.

While this outbreak has occurred in the AHS protection zone of South Africa's AHS controlled area, cases are still more than 150 km away from the AHS free zone (Figure 4), and as things stand the outbreak is unlikely to have any substantial impact on future trade with the European Union, historically South Africa's main trade partner (direct trade in live equids outside of Africa).

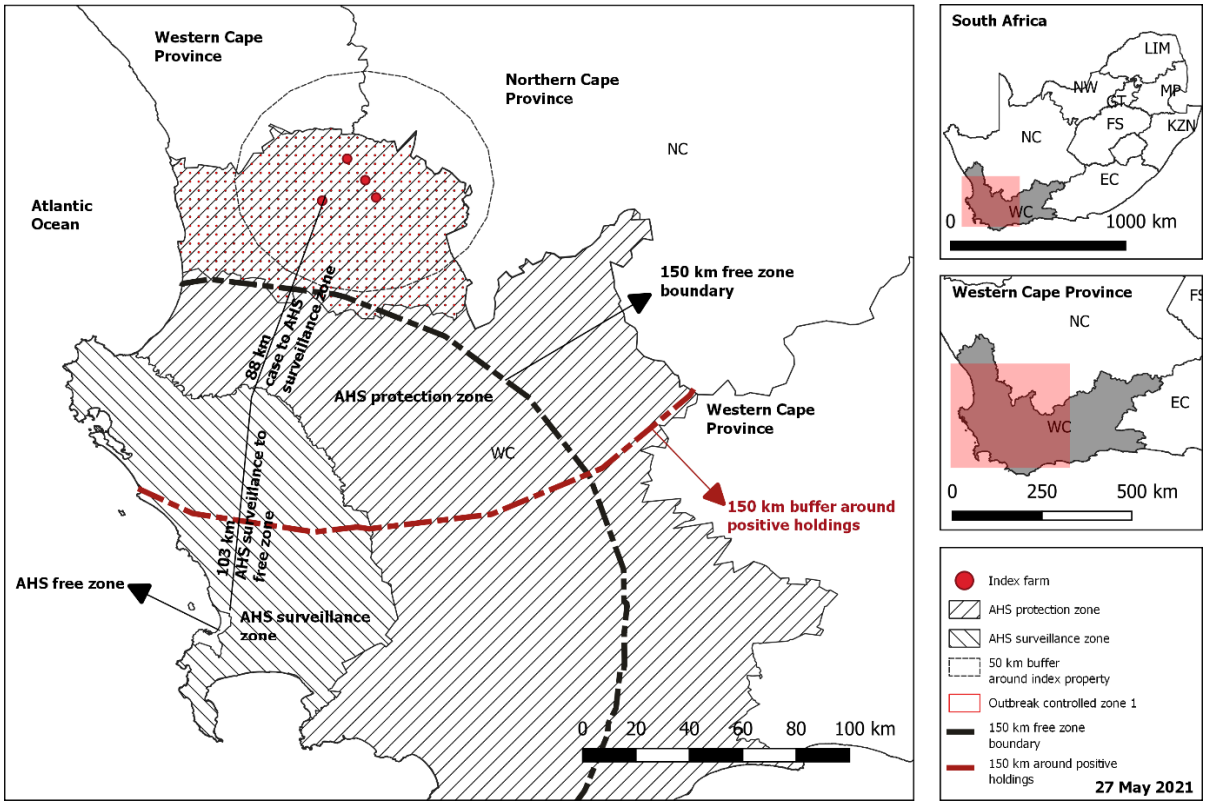

Figure 4: A map showing the current outbreak-controlled zone and associated affected holdings. Although there have been an additional 3 affected holdings since the last report, the 150 km buffer zone surrounding these holdings still falls short of South Africa's AHS free zone in the Cape Town metropole.

For more information, please visit the dedicated website that facilitates communication of the extent, control, and progression of the outbreak. We continue to request owners to take measures to decrease the chances of infection spreading onto their properties, these included:

- The stabling of their horses from two hours before sunset until two hours after dawn to decrease the risk of the vector of the disease (*Culicoides* midges) having contact with their horses.
- To make use of a registered insect repellent and insecticide on their horses during the vector feeding periods.
- To consider further protection of the stabled horses by covering all stable openings with 80-100% shade cloth.

Movement control measures are still in place and restrictions on movement of equids into, within, through and out of the OCZ is still relevant. Communication on the easing of these restrictions will be made as soon as possible after amendments to restrictions are made. Due to the current outbreak, as well as recent confirmed cases of EEV, the start of the AHS vaccination period within the AHS controlled area has been delayed. The Department of Agriculture, Land Reform and Rural Development have instructed that vaccination against AHS may not commence within the AHS controlled area on 1 June 2021. This includes the AHS protection zone, surveillance zone and free zone. The situation will be reviewed, and the risk re-assessed on a 2-weekly basis.