

RESEARCHING THE ROLE OF ZEBRA IN SPREADING AFRICAN HORSE SICKNESS

PROF ALLAN GUTHRIE, DIRECTOR OF THE Equine Research Centre at the University of Pretoria's Faculty of Veterinary Science, Onderstepoort, said they are looking into the role of zebra in the spread of the African horse sickness (AHS) virus among horses in the southern Western Cape. At least two cases of this feared disease were recently reported in Knysna.

African horse sickness, a highly infectious and deadly disease commonly affecting horses, mules, donkeys and zebras, is caused by a virus. This virus is not directly contagious, but is transmitted by an insect vector, the midge *Culicoides imicola*. It is thus referred to as an arbovirus (arthropod-borne virus).

Although carriers, zebras show no disease symptoms from the virus.

Zebra are the only naturally occurring equines in South Africa. In the 17th century, when horses and donkeys were first

imported, zebra roamed over much of the country and the first cases of AHS occurred in the horses of hunters who entered zebra territory. The disease continued to occur countrywide until the early 20th century, although the number of outbreaks decreased as zebra populations declined.

For most of the 20th century, almost all free-living zebra were confined to the north-eastern parts of the country. These are now the only areas where AHS is endemic although, under favourable climatic conditions, it spreads beyond these areas. The minimum zebra population size necessary to maintain a focus of AHS virus is unknown but the small, isolated populations throughout most of the country during the first part of the 20th century were apparently not large enough to maintain the virus. Restocking zebra seems to create conditions favourable for the re-establishment of permanent foci of AHS virus.

Combating AHS nationally

The African Horse Sickness Trust, in conjunction with Onderstepoort Veterinary Research Centre, decided to embark on a blanket immunisation programme to prevent the further spread of AHS.

Prof Guthrie explained: "If horses in a specific area are not vaccinated, it is like a veld fire running wild without any fire breaks. Vaccination is essentially equivalent to putting in fire breaks, so if the horse sickness does spread, the impact would be a whole lot less than it otherwise would have been. We are sitting on a time bomb."

The African Horse Sickness Trust and key role players involved with combating AHS – Onderstepoort Biological Products, Onderstepoort Veterinary Institute, UP Faculty of Veterinary Science, Equine Research Centre, Department of Agriculture and various other specialists – recently held two workshops and identified a number of key aspects:

- Increasing the vaccine coverage of the national herd.
- Improving reporting of the disease.
- Improving cooperation by role-players

