



### **Alan Guthrie**

Equine Research Centre University of Pretoria South Africa

Webinar 4 African horse sickness Eradication Strategies

# **Outline of presentation**

- 1. AHS Transmission Cycle
- Disrupt Transmission= Eradication
- **3. Eradication Tools**
- 4. Pros and Cons of Eradication Tools



### **AHS Transmission**

#### **AHS Free**

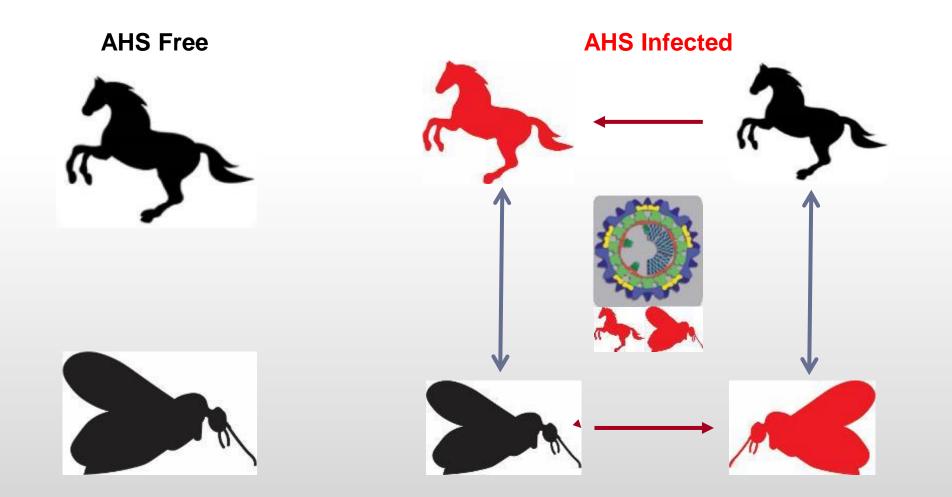




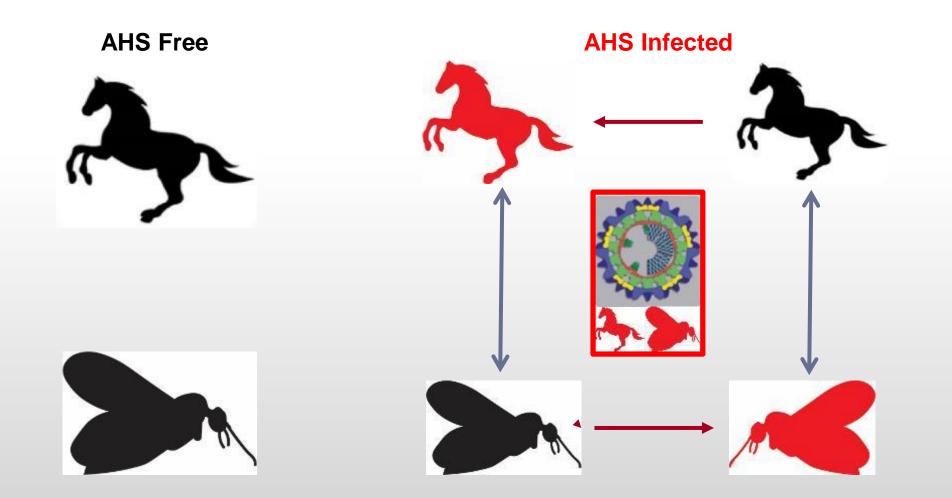


World Organisation for Animal Health · Protecting animals, Preserving our future | 3

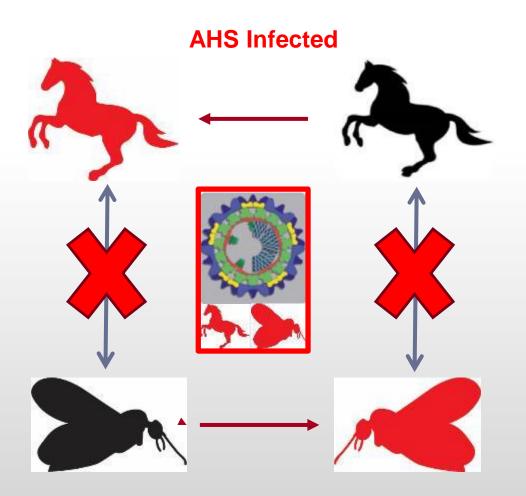
### **AHS Transmission**



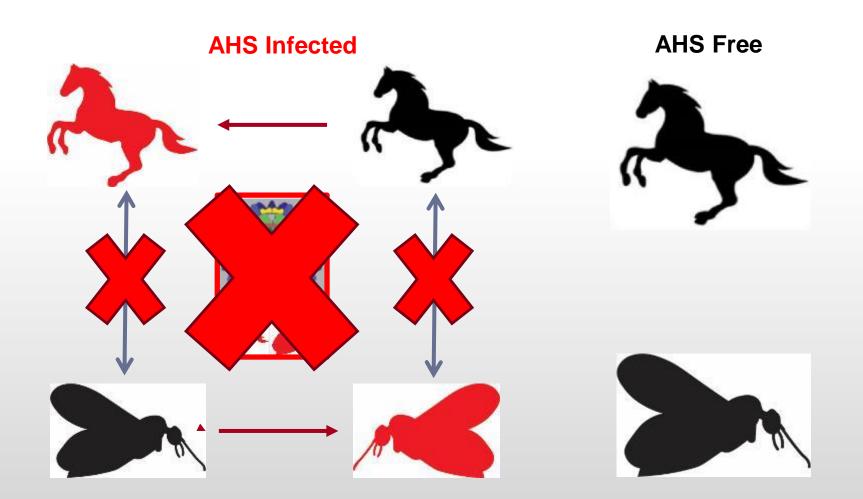
## **AHS Transmission**



### **AHS Eradication**



### **AHS Eradication**



World Organisation for Animal Health · Protecting animals, Preserving our future | 7

# **Eradication Tools**

- **1.** Movement control
- **2.** Vector control
- 3. Vector protection of animals
- 4. Isolation of viraemic animals
- **5.** Vaccination



# **Movement Control**

### 1. Infected Zones

- Control movement
  in zone
- Prevent
  movement of
  viraemic hosts
- Census, Traceability
- 2. Other Zones
  - Census, Traceability



# **Vector Control**

- 1. Eliminate breeding sites
- 2. Insecticides
- 3. Waste and water management





# Vector Protection of Animals

- 1. Mesh barrier
- 2. Insecticide treatment of mesh
- 3. Insecticide and insect repellant treatment of animals
- 4. Reduce attack rate of vectors on animals and infection rate of animals

Creating a "CLOSED SYSTEM" CONNECTING STABLES and ARENA to ease horse and personnel movement, and improve insect/fly/mosquito prevention/control 🦔 🖉 🐭



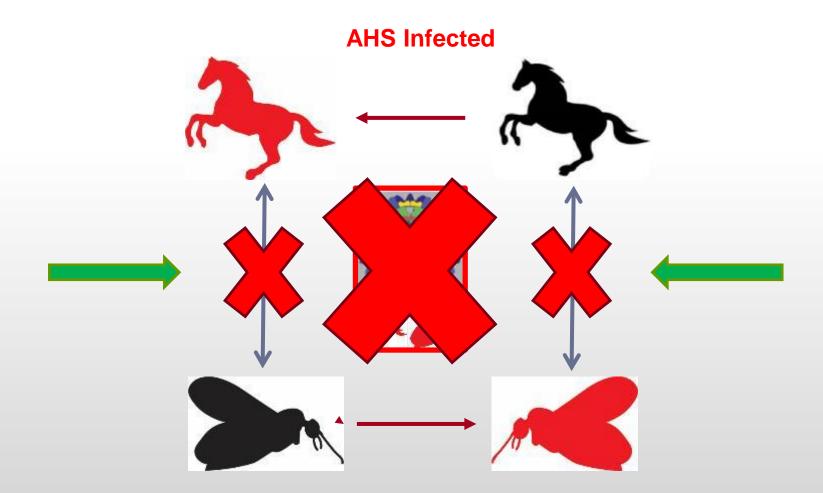


# **Isolation of Viraemic Animals**

- **1.** Mesh barrier
- 2. Insecticide treatment of mesh
- 3. Insecticide and insect repellant treatment of animals
- 4. Reduce infection rate of vectors



## **Vector Control and Protection**



# Vaccination

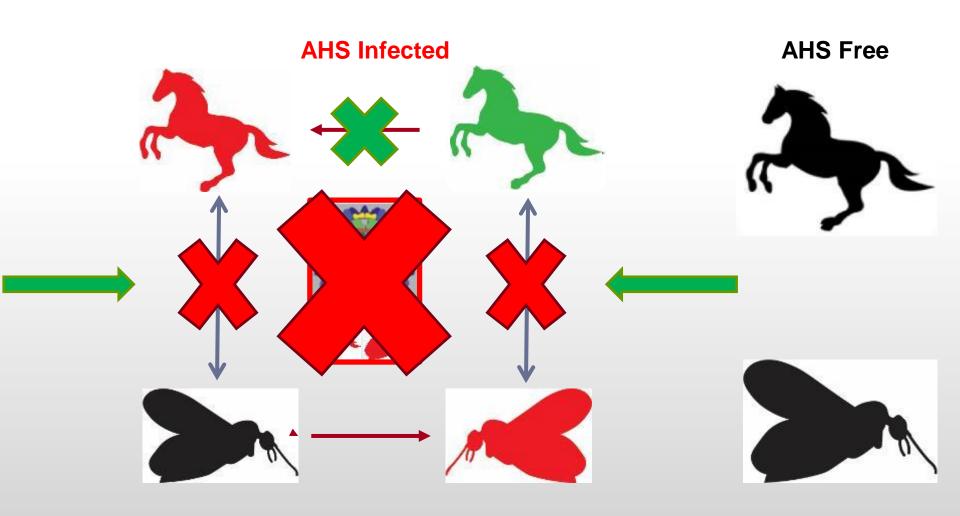
- 1. Reduces number of susceptible animals in the population
- 2. Drastic reduction of viral load in susceptible animals
- 3. Eliminates infection of vectors



## Vaccination

**AHS Infected** 

### **Eradication**



# Thank you for your attention



Alan Guthrie Alan.guthrie@up.ac.za



Faculty of Veterinary Science

Fakulteit Veeartsenykunde Lefapha la Diseanse tša Bongakadiruiwa

WORLD ORGANISATION FOR ANIMAL HEALTH Protecting animals, preserving our future

12, rue de Prony, 75017 Paris, France www.oie.int media@oie.int - oie@oie.int

