Management of FMD in Southern Africa: Status, challenges & opportunities

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Status
Occurrence of FMD outbreaks in three southern African countries in the last 8 decades

SAT serotype outbreaks in & around KAZA TFCA: 2005-2010
Recent major events with regional implications

- Occurrence of SAT outbreaks in unexpected locations 2009-2012
- Zimbabwe/Mozambique/Botswana: Viruses on same SAT2 lineage cause outbreaks in Gaza & Maputo Provinces (Mozambique), Matabeleland South (Zimbabwe) & Zones 6 & 7 (Botswana)
  - indicative of very widespread occurrence of lineage in southern Africa probably derived from Zimbabwe (source unlikely to be buffalo), i.e. indirect evidence of cattle endemicity
- South Africa: Occurrence of SAT2 in cattle in northern KZN that reportedly subclinical ⇒ costing SA’s livestock industry around R 4 billion per annum (FMD-free zone lost)
  - export of breeding animals (domestic & wildlife) also stopped

National Parks & river systems of the Caprivi
30 km gap through which elephants & buffalo are moving from Botswana into Caprivi & Angola
Challenges

Major issues

• Regional information gathering & interpretation
  – WAHID not detailed enough for effective analysis
  – Southern African FMD Bulletin currently unfinanced
• Vast range of antigenic variants within SAT serotypes
  (renders prophylactic vaccination programmes problematic & threatens exports)
  – buffalo virus collection exercises not enough
• Vaccine related issues
  – Outbreaks in vaccinated cattle populations: what’s the reason?
  – Difficulty in developing new vaccine strains (30 years ago was not a problem)
  – Lack of auditing aimed at vaccination programmes
Major issues (cont.)

• The FMD research programme outlined at this meeting is a virological exercise; not oriented to address practical problems of the region, especially not the trade problem
• Goat issue reported by Botswana at this meeting
• Over-hyped attitude of international community towards FMD (the ‘manufactured plague’) – based on repetition of misinformation originating in Europe & N America & not countered by us
  – ‘most highly infectious disease’
  – ‘deadly disease’
  – these are half-truths if not straight lies!

Perceptions of the impact of FMD

UK - 2001
Shakawe, Bots - 2009

Bahr-el-Ghazal, S Sudan - 2005
Opportunities

• Doubtless many – problem is identifying practical opportunities & combining with capacity & determination

• Most serious problem in our region is (arguably) lack of institutional team-work among the fine institutions that we have (sub-optimally utilized resource):
  – FANR Directorate (SADC) & projects
  – OIE Regional Centre, Gaborone
  – Regional OIE Collaborating Centre based at DVTD, UP
  – Two reference laboratories
  – AHEAD units (KAZA & GL)
  – SACIDS
  ? The Pirbright Laboratory - International partner

• Potentially a ‘dream team’, ideally suited to addressing the justifiable concerns of Botswana’s Deputy Permanent Secretary for Agriculture