



Combating the Deadly East Coast Fever Disease

East Coast fever (ECF) is a serious, often fatal, disease of cattle caused by a single-celled parasite, *Theileria parva*. The parasite is transmitted by the brown ear tick, which is found in hay or standing grass. ECF remains a major killer of cattle in 12 countries in eastern, central and southern Africa, killing one cow every 30 seconds and putting more than 25 million cattle at risk.

Symptoms of ECF include enlargement of lymph nodes, fever, listlessness, emaciation, discharge from eyes and nose, bloody diarrhoea and, just before death, coughing and respiratory distress. Death usually occurs within a month of being bitten by an infectious tick.

ECF is a severe livestock disease that has an adverse impact on African economies. Losses due to East Coast fever exceed US\$300 million annually¹. Livestock is a valuable asset in Africa. Selling a cow can pay for a child's school fees, hospital bills or other important needs of the farmer and his/her family. If a farmer's cows are wiped out from ECF, then they and their family's quality of life can be severely impacted. The farmers' large investment in the cow will also be lost.

Tackling the disease

Current control strategies for ECF rely mainly on spraying cattle with acaricide to control ticks and treatment with drugs of cattle infected with the parasite. Both these methods have their disadvantages. Acaricides need to be applied frequently, which is expensive, and due to their toxicity can have undesirable effects on the people applying them and the wider environment. The drugs of choice to treat the disease are only effective if treatment is started early and are very expensive while less expensive drugs are much less effective. However, the only method that will fully protect a cow from ECF is the through vaccination.



1 <http://www.ilri.org/ilrinews/index.php/archives/1484>

Infection and Treatment Method vaccine

This vaccine was developed and produced over 30 years ago by Nairobi-based International Livestock Research Institute (ILRI), its forerunner the International Laboratory for Research on Animal Diseases and Kenya Agricultural and Livestock Research Organisation (formerly Kenya Agricultural Research Institute). Now multiple actors, including GALVmed, are working to make the vaccine accessible and affordable to livestock keepers.

In December 2014, the Malawi-based Centre for Ticks and Tick-Borne Diseases (CTTBD) was officially launched as the current commercial producer of the ECF Muguga Cocktail vaccine. GALVmed has supported and invested significantly in CTTBD with funding from the Bill & Melinda Gates Foundation and the UK Government. This support is geared towards quality assured vaccine production and research leading to sustainable production of the ECF Muguga cocktail vaccine and potentially vaccines for other tick-borne diseases. GALVmed has also provided capacity building for the CTTBD staff to be well equipped to handle not only the production but also sale and delivery of the vaccine.

Official Muguga Cocktail vaccinators

Because ECF-ITM is a live vaccine, it requires that the live parasites be stored in liquid nitrogen and an expert veterinary supervision administers the vaccine. The official vaccinators in East Africa and Malawi are as follows.

Kenya

VetAid contact: Dr Mpilei David on 0725330278 and Dr Gabriel Turasha on 0721473926

BMC/Agrihaus: Dr Rawlynce Bett on 0726681441

KDFF: Mr David Bett on 0725799246

Sidai Africa Ltd: Dr Rezin Odede on 0722628472, 0701225949, 0703491296

TEGEA Ltd: Dr. Joseph Karanja on 0722140028, Email:joekaranja@outlook.com

Malawi

BVM: Dr Poya Njoka on +265999320530

GSJ: Dr Gilson Njunga on +265888868354

Tanzania

Alpha-Veterinary Services (part of PHARMAVACS Limited): Dr Nderingo Ngowi on +255784918504

Ronheam International: Dr Henry Mbwile on +255222116335

Vet Agro Limited: Dr Lieve Lynen on +255786797071

Uganda

ERAM: Edward Muhigirwa on +256312266283

Scopevet: Ponsiano Kibirige on +256712273791



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