

- Some animals may come down with ECF due to vaccine failure like it happens with most vaccines.



Vaccine administration using 1ml syringe.



Calf weighed before vaccination

Compiled by:
Olum.M.O., Mungube. E.O. and Maichomo. M.W

Layout and Design by: Odipo.S

For further information contact:
Veterinary Research Institute, Muguga of KALRO,
P.O. Box 32-00902 Kikuyu
Email: Director.vsri@kalro.org
Telephone: 020 2020512

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PROTECTION OF CATTLE FROM EASTCOAST FEVER (ECF) THROUGH VACCINATION TO REDUCE DEATHS



Protection of Cattle from East-coast Fever (ECF) through Vaccination to reduce deaths

East Coast fever (ECF) is a disease of cattle transmitted by a tick called the 'Brown ear tick' (*Rhipicephalus appendiculatus*).



Male brown ear tick and an engorged female brown ear tick

One female tick can lay 10,000 eggs which become infective if they pick an infection from infected cattle. One tick can therefore infect extensive pastures in a short time with numerous ticks.



Eggs laid by one tick a tick can lay up to 10,000 eggs

The disease is a major constraint to cattle productivity in areas where the vector tick occurs in East, Central and Southern Africa. In this region it is estimated the disease costs about 300 million USD through mortality, cost of control and treatment of affected animals. Animals that recover from the disease take a long time to reach the production levels they had attained before infection.

The vaccine – Theileria Marikebuni

This is a special vaccine and is not administered like other vaccines. The vaccine is administered close to the ear or neck lymph node and together with 30% oxytetracycline.

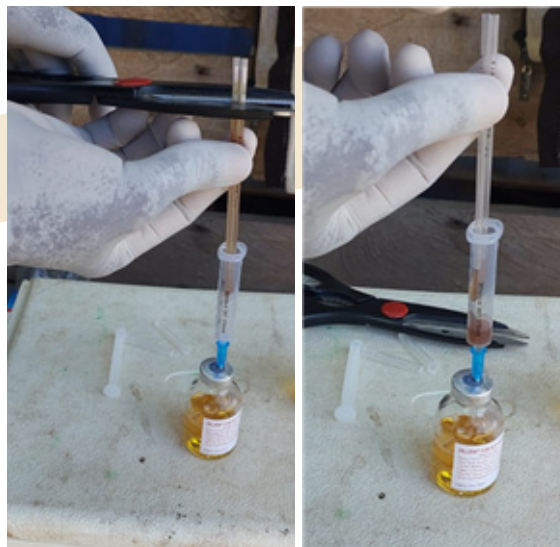
- The vaccine costs between ksh 1,000-3,000 unlike treatment which costs ksh 4,000-8,000.
- It is used once in a lifetime.

Other facts about vaccine

- Isolated in the coastal region of Kenya.

Cattle may be immunized from 2 months of age. The vaccine confers lifetime immunity on a broad spectrum of protection. It is currently marketed in straws of 10 doses (cattle). Work to get a 5 dose (cattle) straw is ongoing.

The vaccine was tested in the dairy farming areas of Kenya and found effective. It is available from KALRO – Muguga



Reconstitution of ECF vaccine

Advantages of the vaccine

- The vaccine reduced cost of tick control resulting to increased spraying intervals. It reduced labour needed for spraying animals and also reduced cases of acaricide poisoning in humans.
- By increasing spray intervals, contamination of environment with acaricides has decreased and has also lowered chances of contamination of animal products with acaricides.
- It has been credited with reduced incidence of development of acaricide resistance by ticks.
- The vaccine reduces severity of ECF infections and improves response to treatment in case infection occurs.



Marikebuni vaccine diluents

Disadvantages of immunization

- The cost of the vaccine is high because of the many requirements that go with it.
- The vaccine can only be administered by trained qualified animal health providers.
- Few animals may react to the vaccine and may discourage some farmers from embracing the technology.