CONTROLLING
East Coast Fever (ECF)
BY IMMUNIZATION

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KARI Information brochure series 2013/37
Kshs. 30

A healthy cow

A steer showing clinical signs of ECF

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### East Coast Fever (ECF)

**The disease is confirmed in a laboratory by demonstration of the parasites in a stained lymph node smear under a microscope.**

**How do I treat the disease?**

Drugs for treatment of the disease are available commercially. They include Buparvaquone, Buparvex, Parvexone and Terit. For them to be effective, early diagnosis and treatment are essential.

**How do I control the disease?**

There are several ways of controlling the disease:

1. The most common method of controlling ECF and other tick-borne diseases is by eradicating the ticks that transmit the disease.
   - This is done by dipping or spraying the animals with chemicals that kill ticks (acaricide).
   - The effectiveness of this method depends on thorough wetting of the animal.
   - It must be done once weekly.
   - NB: This method is expensive and ticks develop resistance to the chemicals over time. The chemicals are toxic to humans and animals; and must be handled according to the manufacturers' instructions.

2. When an animal recovers from ECF it develops immunity to clinical re-infection with the same strain of the parasites.

- The immunity is life-long as long as there is constant challenge which acts as a booster.
- Immunity is not transferrable to the offsprings. Calves born off immunized animals must be immunized within one month of birth.
- A vaccine with a broad spectrum of protection is available commercially. The vaccine is available to trained animal health providers. (training of these providers is essential because the vaccine is live).
- Vaccination involves infection of the animal with the live parasite and simultaneous blocking of parasite multiplication with a blocking agent. A mild reaction may occur in a few of the animals and they need no treatment. A small (<1%) percentage of the animals may show more severe reaction that will need treatment.

What are the advantages of immunisation?

- Relaxation of spraying to once every 2-3 weeks. This cut the spraying costs by half or two thirds.
- Immunity is long-lasting and boosting occurs naturally.
- Reduction in the cost of drugs to treat ECF cases.
- Immunised animals can fetch better prices in the market than non-immunised animals.
- Reduction of environmental contamination with acaricides.
- Reduced incidence of resistance development in ticks.

What are the disadvantages of immunisation?

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

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