

Seeking a Better Way for African Farmers to Fight a Fever



A Maasai man herds his cattle for grazing on the edge of Nairobi National Park

(You can download an MP3 of this story at voaspecialenglish.com)

This is the VOA Special English Agriculture Report.

East Coast fever kills hundreds of thousands of cattle in eastern and central Africa every year. The animals become infected when they get bitten by ticks carrying the parasite that causes the disease. A parasite is an organism that feeds on other organisms.

Donald Knowles directs the animal disease research unit in the Agricultural Research Service, part of the United States Department of Agriculture. The service is working with the International Livestock Research Institute in Kenya to find better ways to prevent parasitic diseases in cattle. Dr. Knowles is also a professor at Washington State University.

He points out that East Coast fever is not a contagious disease, so animals cannot give it to each other.

DONALD KNOWLES: "You need a tick to transmit from one infected cow to the other. They won't transmit just by standing next to each other. You need a tick to move it between them."

Farmers in parts of Africa use a vaccination method against East Coast fever known as infect and treat. First they infect animals with live parasites. Then they treat them with drugs to help them recover.

That way, explains Dr. Knowles, the animal becomes immunized or vaccinated against a full case of the deadly fever. But there are problems with this method of vaccination. Uninfected ticks that bite the vaccinated animal can still get infected and spread the parasite to other animals.

DONALD KNOWLES: "Once a cow is infected with this parasite, all the data indicates that the cow stays infected for life. And the consequences of that, the big deal about that is, that means that cow, even a cow that has been vaccinated, now it's protected against the disease, but it can still transmit. See it's infected for life. And so that animal is still a source of transmission."

And that is not the only problem with this method of vaccination.

DONALD KNOWLES: "One of the things in using live vaccines is that they usually require cold storage. And that adds to the cost of it, and also adds to the difficulty of using it in places like Africa."

For more than four years, American and Kenyan scientists have studied diseases carried by ticks. The scientists in the United States centered their work on the parasite that causes Texas cattle fever. This fever is common to the Americas.

This year, the scientists began a new study in Africa. The study is aimed at developing a new vaccine for the East Coast fever parasite. Dr. Knowles says their goal is a vaccine that does not require infecting and treating animals or the need for cold storage.

And that's the VOA Special English Agriculture Report, written by Jerilyn Watson. We have transcripts, MP3s and now PDFs for e-readers at voaspecialenglish.com -- VOA's daily source of news and information for people learning English. Find us on Facebook, Twitter and YouTube at VOA Learning English. I'm Doug Johnson.