

Bovine Intervention: Sleeping Sickness A Thing Of The Past

University of Greenwich



One of Africa's most harmful pests, the tsetse fly, has been all but eradicated from parts of the continent thanks to a novel artificial cow developed by an international group of researchers, including scientists from the University of Greenwich.

Today, sleeping sickness is virtually unheard of.

The artificial cows attract tsetse — which can infect humans and cattle with fatal sleeping sickness — by emitting chemicals (kairomones) to mimic the smell of real cattle. The fake cattle are impregnated with insecticides that kill the tsetse attracted to them.

The cows were introduced to Zimbabwe in the mid-1980s, when thousands of cattle were infected with nagana (the equivalent to human sleeping sickness), transmitted by tsetse.

“ Cases of sleeping sickness in Zimbabwe have plummeted to practically zero, largely due to the use of artificial cows.

Cases of nagana in Zimbabwe been virtually zero for the last five years with the help of nearly 60,000 artificial cows. The fake cows also act as an effective barrier to stop tsetse re-invading areas cleared of flies.

Not only are artificial cows highly successful in controlling tsetse, but their use also results in a dramatic reduction in the amount of insecticide necessary to control the pest.

With only four artificial cows needed per square kilometre to ensure effective pest control, the use of insecticide is far more targeted than conventional widespread aerial and ground spraying, resulting in a greatly reduced environmental impact.

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