Every year in Africa, three million cattle succumb to African animal trypanosomosis commonly known as Nagana in cattle, goats, and sheep.

The unbearable disease is caused by Trypanosoma parasites, which are mainly transmitted by tsetse flies, and mechanically by other biting flies.

Nagana's symptoms includes anemia, fever, swelling of the lymph nodes, and decreased appetite; leading to weight loss, lethargy abortions, a suppressed immune system, and increased chances of concurrent infections.

Now, scientists from the Nairobi-based International Center of Insect Physiology and Ecology (ICIPE) have said they have developed an easy method to diagnose trypanosomosis.

According to icipe, the new method is rapid, affordable and efficient in diagnosing the disease, which kills both livestock and wild animals.

Dr Merid Getahun, icipe scientist and leader of the study explains that "Using this knowledge, we have developed a process for biomarker-based diagnosis of African animal trypanosomosis.

"As a result, through a simple urine test, which can be administered even by livestock keepers, it is possible to confirm whether an animal has the disease," He points out

Getahun said they identified two classes of compounds in the urine of cows, which are specifically affected by trypanosome infections. Therefore, these two classes of compounds are predictive biomarkers of African animal trypanosomosis.

The new method is specific to trypanosome infections, as it is negative on animals suffering from other ailments with symptoms similar to African animal trypanosomosis.

Daniel Masiga, icipe's Principal Research Scientist, and Head of Human and Animal Health said the biomarker-based diagnosis can be translated into a ready-to-use, inclusive innovation.

"For example, the reagent and activator can be packaged into a dipstick that can be easily applied to a urine sample. This would empower livestock keepers to make evidence-based decisions on the health of their animals," said the scientist.

Over the years, one of the main challenges in tackling the disease has been diagnostic strategies, currently which include microscopic examinations and polymerase chain reaction (PCR) tests, which are costly and thus inaccessible to livestock keepers.

Segenet Kelemu, ICIPE Director General, said the diagnostic tool for African animal trypanosomosis is an innovation that is not only effective but would also be accessible and affordable to all segments of society, transforming many communities.

Trypanosomosis causes direct and indirect losses of approximately USD 4.75 billion per year in Africa.

In Rwanda, farmers in collaboration with local leaders in Mwiri, Kayonza district have been trained to manage Tsetse files by installing traps to reduce their population.