

Applied Biosystems: Comprehensive Animal Health Diagnostic Tools

Boost efficiency in animal sample extraction and improve target amplification

Thermo Fisher's Animal Health diagnostic technologies include advanced tools such as the Avian Influenza Kit, VetMAX Master Mixes, MagMAX Core Sample Extraction Kits, and the QuantStudio 5 Real-Time PCR system. Together, these tools are designed for the precise detection of animal pathogens, especially avian influenza, through high-sensitivity PCR-based diagnostics.



ThermoFisher
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Thermo Fisher Scientific
Thulile Nhlapo

Commodities

Livestock

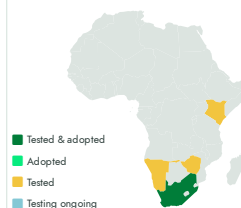
Sustainable Development Goals



Categories

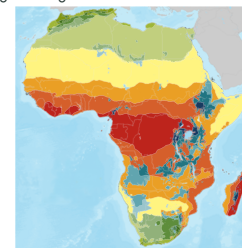
Production, Equipment, Pest control

Tested/adopted in



Where it can be used

This technology can be used in the colored agro-ecological zones.



Target groups

Breeders, Veterinary Laboratories,
Researcher center

✓ This technology is **validated**.

9-9



Scaling readiness: idea maturity
9/9; level of use 9/9

Inclusion assessment

4

Climate impact

1

Problem

- **High Economic Impact:** Outbreaks like avian influenza cause mass culling and major economic losses, affecting food security.
- **Yield Losses:** Disease outbreaks in livestock reduce productivity, impacting farmers' incomes, especially for smallholders.
- **Limited Lab Resources:** Many veterinary labs lack resources for reagent preparation and complex diagnostics, limiting accessibility to reliable testing.

Solution

- **High Sensitivity and Specificity:** Real-Time PCR Kits (e.g., Avian Influenza Kit) detect low pathogen levels for early disease detection and containment.
- **Streamlined Sample Processing:** MagMAX Kits simplify DNA/RNA extraction, increasing efficiency and reducing sample processing time.
- **User-Friendly and Resource-Efficient:** Simplified protocols and minimal prep make the technology accessible for smallholder farmers and resource-limited labs.

Key points to design your program

Thermo Fisher's Animal Health Diagnostic Technology for Africa

Thermo Fisher's diagnostic technology offers rapid and accurate disease detection, improving livestock health and farm productivity. Tools like Real-Time PCR Diagnostic Kits and VetMAX Master Mixes help prevent outbreaks and safeguard income by enabling early disease detection.

This technology supports **SDG 3** (improving health), **SDG 2** (promoting food security) and **SDG 11**. It complements other agricultural innovations, making it an ideal solution for development programs focused on animal health, rural livelihoods, and sustainable agriculture. Partnerships with local clinics and agencies ensure successful implementation and support.

Cost: \$\$\$ **15 USD per sample**

For routine testing

150,000 USD

Installation of a qPCR workflow for extraction to result



Applied Biosystems

<https://taat.africa/xcy>

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