

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
SCIENTIFIC

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Thulile Nhlapo

Commodities

Livestock

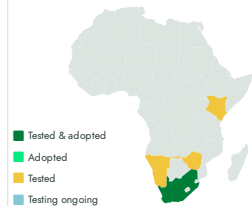
Sustainable Development Goals



Categories

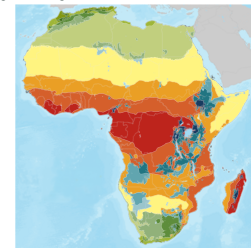
Production, Equipment, Pest control

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

Gender 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 project

Thermo Fisher's Animal Health diagnostic technology supports improved animal health and agricultural productivity through rapid disease detection. To integrate it into your projects:

- Assess required quantities and costs of diagnostic tools.
- Factor in delivery and import costs.
- Plan for training and ongoing support for local veterinary staff.
- Develop communication materials for awareness and education.
- Collaborate with local agricultural institutes, veterinary labs, and agro-dealers for effective implementation.

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/ygz>

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Enquiries e-catalogs@taat.africa