

Applied Biosystems: Comprehensive Animal Health Diagnostic Tools



ThermoFisher
SCIENTIFIC

Thermo Fisher Scientific
Thulile Nhlapo

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.

This technology is **validated**.

 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 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:

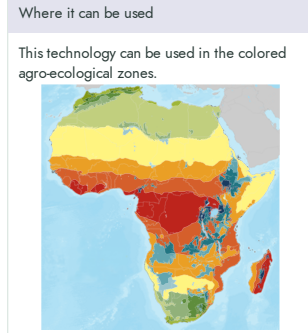
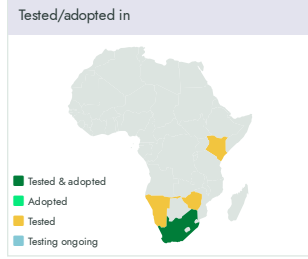
- Assess required quantities and costs of diagnostic tools.
- Factor in delivery and import costs.
- Plan for training and ongoing support for local veterinary staff.
- Develop communication materials for awareness and education.
- Collaborate with local agricultural institutes, veterinary labs, and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

150,000 USD
Installation of a qPCR workflow for extraction to result

Commodities
Livestock

Sustainable Development Goals

Categories
Production, Equipment, Pest control



Target groups
Breeders, Veterinary Laboratories, Researcher center

