Samples required for Diagnosis

• Blood
• Serum
• Liver and spleen after post-mortem.

Advantages of the RT-PCR

• Fast
• Detects small quantities of viral RNA.
• Doesn’t require viable virus.

The PT-PCR test is rapid and therefore:

• Allows fast decision making on control measures
• Prevents further losses.
**Introduction**

Rift Valley Fever (RVF) is a viral disease that was first identified in Kenya in 1931. It occurs as outbreaks following unusually heavy rains and is transmitted by mosquitoes. It is a disease of both animals and humans.

**RVF in animals**

In animals the disease is characterized by:
- Fever and loss of appetite
- Yellowish thick nasal discharge
- Bloody diarrhea.
- About 90% deaths in young animals and 10% in adults 100% abortion in pregnant ewes
- Hemorrhage in liver, lungs and other organs.

**RVF in humans**

Vectors such as mosquitoes and other bloodsucking insects pass infection to humans. Contact with infected animal tissues may also cause infection.

The human disease is characterized by:
- Fever and chills
- Severe headache
- Diarrhea and vomiting
- Liver, lung and spleen bleeding
- Less than 1% deaths.

**Impact of RVF**

- Economic loss due low production, abortion and deaths
- Loss of local and export markets
- Restricted animal movement.

**Control of RVF**

- Restricting movement of livestock
- Vector control
- Live but disease free virus
- Inactivated virus vaccines.

**Diagnosis of RVF**

- Conventional tests include
- Virus isolation in tissue culture and confirmation with Fluorescent Antibody staining.

Enzyme Linked Immunosorbent Assays (ELISA) for detection of virus and serology.

These tests take 2 days to confirm diagnosis and require skilled personnel.

**New Diagnostic test**

Diagnosis of RVF has been greatly improved by the use of the Reverse Transcriptase – Polymerase Chain Reaction (RT-PCR) test which takes 12 hours for a confirmed diagnosis.

**Reverse Transcriptase – Polymerase Chain Reaction (RT-PCR)**

- This test is rapid, sensitive and specific.
- It is very useful during outbreaks since results are obtained within 12 hours.