



Food and Agriculture
Organization of the
United Nations



WOAH/FAO
Foot-and-Mouth Disease
Reference Laboratories
Network



FMD

2026

**APR
MAY
JUN**

**Quar
ter
ly**

**Re
port**

2026 Foot-and-mouth disease quarterly report April-May-June

European Commission
for the Control of
Foot-and-Mouth Disease

2023-2027 Strategy
Move FAST
Get prepared



Funded by
the European Union

All maps within this document were drawn using the United Nations Map (UNMap) v2020, supplied to the authors by FAO or The Global Administrative Unit Layers (GAUL) 2024 produced by the FAO (doi: [10.4060/cd4262en](https://doi.org/10.4060/cd4262en)). The following disclaimers apply to the maps in this document.

The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Jammu and Kashmir: Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

Sudan and South Sudan: Final boundary between the Republic of Sudan and the Republic of South Sudan has not yet been determined.

Abyei: Final status of the Abyei area is not yet determined.

Falkland Islands (Malvinas): A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas).

Use of data (including all images) from this document

Copies of all the individual reports cited herein can be obtained from WRLFMD (www.wrlfmd.org) and please seek permission before presentation, publication or other public use of these data.

Contents

1.	Highlights and headlines	1
2.	General overview	2
3.	Summary of FMD outbreaks and intelligence	3
3.1.	Overview of reports	3
3.2.	Pool 1 (Southeast Asia/Central Asia/East Asia).....	3
3.3.	Pool 2 (South Asia)	7
3.4.	Pool 3 (West Eurasia and Near East).....	8
3.5.	Pool 4 (North and Eastern Africa)	10
3.6.	Pool 5 (West/Central Africa)	11
3.7.	Pool 6 (Southern Africa)	12
3.8.	Pool 7 (South America).....	14
3.9.	Europe	15
3.10.	Extent of global surveillance	16
4.	Detailed analysis	19
4.1.	Pool 1 (Southeast Asia/Central Asia/East Asia).....	19
4.2.	Pool 2 (South Asia)	22
4.1.	Pool 3 (West Eurasia and Near East).....	24
4.2.	Pool 4 (North and East Africa).....	30
4.3.	Pool 5 (West/Central Africa)	30
4.4.	Pool 6 (Southern Africa)	30
4.5.	Pool 7 (South America).....	38
4.1.	Europe	38
4.2.	Vaccine matching	39
Annex 1:	Sample data	42
	Summary of submissions.....	42
	Clinical samples.....	42
Annex 2:	FMD publications	46
Annex 3:	Vaccine recommendations	52
Annex 4:	Brief round-up of EuFMD and WRLFMD activities	53
	Courses & Training.....	53
	Meetings.....	55

Abbreviations and acronyms

ANSES	<u>Agence nationale de sécurité sanitaire de l'alimentation, de l'environnement et du travail</u> , France
BVI	<u>Botswana Vaccine Institute</u>
EuFMD	<u>European Commission for the Control of Foot-and-Mouth Disease</u>
EURL for FMD	<u>European Union Reference laboratory for Foot-and-mouth disease</u>
FAO	<u>Food and Agriculture Organization of the United Nations</u>
FAST reports	foot-and-mouth and similar transboundary animal diseases reports
FMD	foot-and-mouth disease
FMDV	foot-and-mouth disease virus
FMDV GD	foot-and-mouth disease virus genome detected
FMDV NGD	foot-and-mouth disease virus genome not detected
NT	not tested
NVD	no virus detected
NRL	National reference Laboratory
rRT-PCR	real-time reverse transcription polymerase chain reaction
SAT	Southern African Territories
SVD	swine vesicular disease
VI	virus isolation
WAHIS	<u>World Animal Health Information System</u> (of the WOAHA)
WOAH	<u>World Organisation for Animal Health</u>
WRLFMD	<u>World Reference Laboratory for Foot-and-Mouth Disease</u>

1. Highlights and headlines

Thank you for taking the time to read this report which in a few words attempts to summarise the global patterns of FMD epidemiology. During the past three months, the WRLFMD has reported test results for FMD virus samples received from Algeria, Bangladesh, Bhutan, Indonesia, Israel, Mongolia, South Africa and Türkiye. At the same time, new sequences have been submitted for analyses associated with FMD cases in Botswana (from BVI, Botswana), Cyprus (from ANSES, France), Eswatini (from BVI, Botswana), Lesotho (from BVI, Botswana), Syria (from Hama University, Syria), Zambia (from BVI, Botswana) and Zimbabwe (from BVI, Botswana).

Events (summarised below) continue to be dominated by the SAT1/III topotype, which was first detected in Iran and Türkiye during the autumn of 2025. This virus shares close genetic identity to a vaccine strain (BOT/1/77) and is distinct to the SAT1/I topotype originating from East Africa, that also caused cases in the Middle East during 2025; however, the precise origin and circumstances that explain how a vaccine strain has emerged to cause field outbreaks are still not understood. Cases due to this topotype have been detected across the Middle East and this topotype has caused two separate incursions into Europe (Cyprus and Lesvos, Greece) where more than 200 outbreaks have been recorded. In addition, the SAT1/III topotype has spread via unexplained pathways beyond the Middle East to cause outbreaks in China (Gansu Province and the Xinjiang Uyghur Autonomous Region) and western Mongolia. Evidence from field outbreaks shows that this lineage is able to infect a wide range of susceptible species (clinical disease reported in cattle, small ruminants, pigs and yaks) and data from LVRI, China demonstrates high pathogenicity of this strain in cattle, sheep and pig as well as potential for transmission from pigs-to-pigs and pigs-to-cattle. These unprecedented events heighten concerns that there will be onward spread into Southeast and South Asia where there is no herd immunity and vaccine viability is very limited (<https://openknowledge.fao.org/server/api/core/bitstreams/b381992f-6109-42de-a482-e8795a984f67/content>). In southern Africa, an upsurge of outbreaks due to the SAT1/III topotype (NB: this is the wildtype strain not a vaccine-derived virus) have been detected across provinces in South Africa, which appear to be closely linked to cases in neighbouring countries (Botswana, Lesotho and Eswatini). Cases due to SAT 2 have also been recorded across southern Africa.

STOP PRESS: Outside of Asia and Europe, SAT1 outbreaks have also been reported in Libya during July, although genetic typing data are not yet available to define whether these cases are due to further spread of SAT1/III or are more closely related to the SAT1/I topotype that caused outbreaks in Egypt during 2025. In addition to SAT1, sequences provided from IZSLER, Italy have detected the first evidence of the O/ME-SA/SA-2018 lineage in Libya, and together with recent sequences from Israel and Türkiye, these data highlight the increasing dominance of this serotype O lineage in Pool 3.

Together, these unexpected events reinforce the importance of the work undertaken by the WOA/FAO FMD Reference Laboratory Network (www.foot-and-mouth.org) to monitor FMD risks. Information on these samples can be retrieved from <http://www.wrlfmd.org/>. We invite readers to use a new web-based dashboard (<http://www.openfmd.org>) to retrieve and interrogate FMD data and perform custom analyses for vaccine selection using PRAGMATIST.

Don King, Pirbright, July 2026

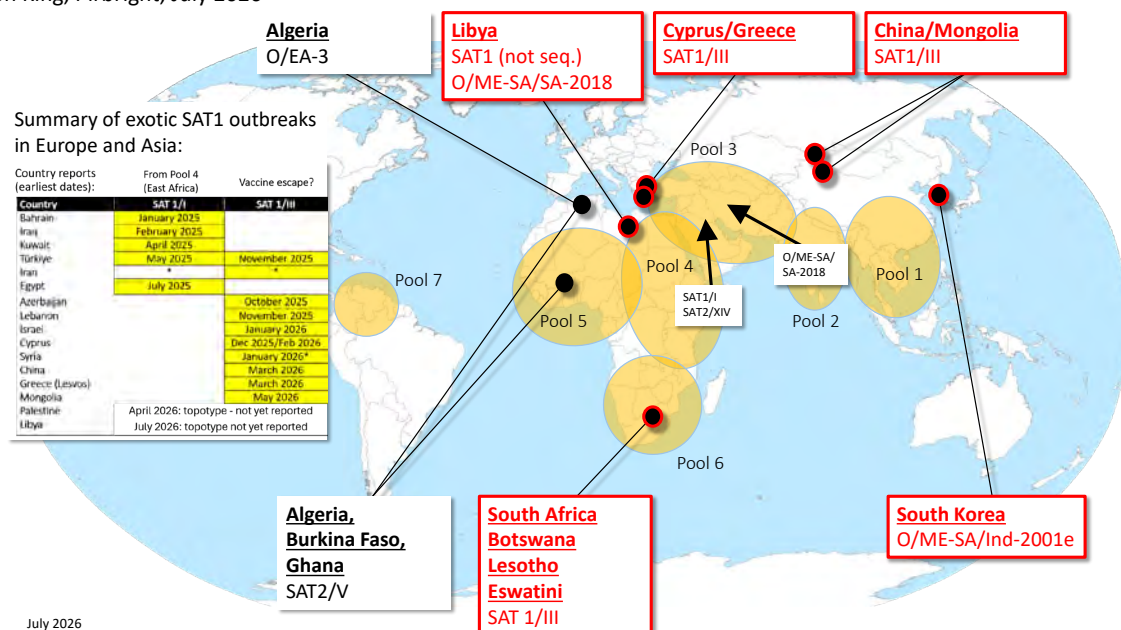


Figure 1: Recent FMD outbreaks with global epidemiological significance.

Note: New headline events reported April to June 2026 are highlighted in red with FMD endemic pools highlighted in orange. Source: WRLFMD. Map conforms to the United Nations World Map, June 2020.

2. General overview

Endemic Pools comprise separate ecosystems that maintain independently circulating and evolving foot-and-mouth disease virus (FMDV) genotypes. In the absence of specific reports, it should be assumed that the serotypes indicated below are continuously circulating in parts of these pools and would be detected if sufficient surveillance was in place.

POOL	REGION/COUNTRIES	SEROTYPES PRESENT
<u>SOUTHEAST ASIA/CENTRAL ASIA/EAST ASIA</u>		
1	Cambodia, China, China (Hong Kong SAR), Taiwan Province of China, Indonesia, Democratic People's Republic of Korea, Republic of Korea, Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, Russian Federation, Thailand, Viet Nam	A, Asia1 and O
<u>SOUTH ASIA</u>		
2	Bangladesh, Bhutan, India, (Mauritius ¹), Nepal, Sri Lanka	A, Asia1 and O
<u>WEST EURASIA & NEAR EAST</u>		
3	Afghanistan, Armenia, Azerbaijan, Bahrain, Georgia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Syrian Arab Republic, Tajikistan, Türkiye, Turkmenistan, United Arab Emirates, Uzbekistan	A, Asia1 and O (Exotic incursions of SAT1 and SAT2)
<u>EASTERN AFRICA</u>		
4	Burundi, Comoros, Djibouti, Egypt ³ , Eritrea, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Uganda, United Republic of Tanzania, Yemen	O, A, SAT1, SAT2 and SAT3
<u>NORTH AFRICA</u>²		
	Algeria, Libya, Morocco, Tunisia	A and O
<u>WEST/CENTRAL AFRICA</u>		
5	Benin, Burkina Faso, Cabo Verde, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome and Principe, Senegal, Sierra Leone, Togo	O, A, SAT1 and SAT2
<u>SOUTHERN AFRICA</u>		
6	Angola, Botswana, Malawi, Mozambique, (Mauritius ¹), Namibia, South Africa, Zambia, Zimbabwe	SAT1, SAT2 and SAT3 (O ⁴ , A)
<u>SOUTH AMERICA</u>		
7	Venezuela (Bolivarian Republic of)	O and A

¹FMD outbreaks in 2016/21 due to O/ME-SA/Ind-2001 demonstrate close epidemiological links between Pool 2 and Mauritius, while cases due to serotype SAT 3 (reported in 2024) highlight the connectivity to Pool 6.

²Long-term maintenance of FMDV lineages has not been documented in the Maghreb countries of North Africa and therefore this region does not constitute an Endemic Pool, but data is segregated here since FMD circulation in this region poses a specific risk to FMD-free countries in Southern Europe.

³Egypt represents a crossroads between East African Pool 4 and the Near East (Pool 3).

⁴Detection of O/EA-2 in southern/western Zambia (2018–2021), Namibia (2021), Malawi (2022) and Mozambique (2022) represent a new incursion into Pool 6.

3. Summary of FMD outbreaks and intelligence

3.1. Overview of reports

The location of information provided in this report can be seen on the map below. More detailed maps and sample data, on a country-by-country basis, can be found in the following sections of this report.

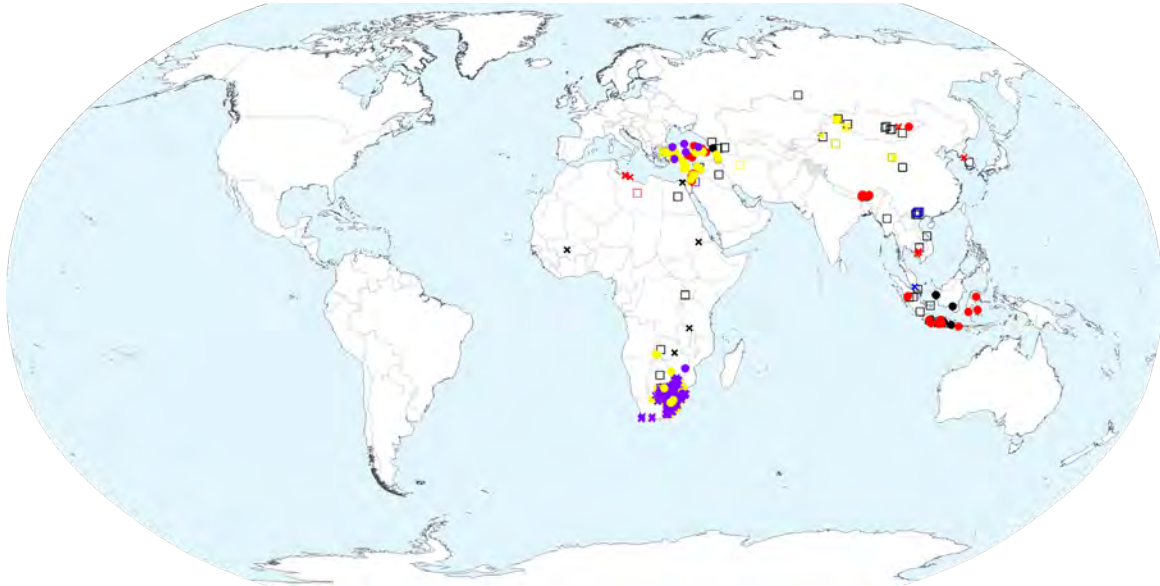


Figure 1: Samples tested by WRLFMD or reported in this quarter. ● indicates samples analysed; × indicates outbreaks reported/updated to the WOAH this quarter; □ indicates reports of FMD from other sources. Shape colours define the serotype detected ● O; ● A; ● C; ● Asia1, ● SAT1, ● SAT2, ● SAT3, ● serotype undetermined/not given in the report, ○ FMD not detected.

Source: WRLFMD. Map conforms to the United Nations World map, June 2020.

Note: in the sections below, sources of the information and disease intelligence are indicated. For ProMED posts, only the title of the post is indicated since ProMED is now a subscription service, so access to these posts may be restricted.

3.2. Pool 1 (Southeast Asia/Central Asia/East Asia)

The Kingdom of Cambodia



There have been outbreaks of **FMD type O** affecting cattle in Cambodia from Kâmpóng Spœ (2) and Kâmpóng Chhnang (1) Provinces. A total of 58 cattle had FMD, with mortality affecting three animals.

WAHIS event ID: [7277](#)

● Foot & mouth disease - Cambodia: cattle, serotype O, WOAH ProMED posts: [8732568](#)

The People's Republic of China



Two **FMD type SAT 1** outbreaks have been reported in China via WAHIS this quarter. One outbreak from Gulang County, Wuwei City, Gansu Province affected cattle (n=77) and the other, from Yining County, Ili Kazakh Autonomous Prefecture, Xinjiang, also affected cattle (n=142). This is the first time this serotype has been detected in China.

WAHIS event ID: [7445](#)

At the beginning of April FMD type SAT 1 was officially confirmed at sites in Gansu Province and Xinjiang Uyghur Autonomous Region – the first detection of this serotype in the country. Current domestic vaccines do not include this serotype. Two local vaccine producers have been granted emergency approval for SAT 1 vaccine production and large-scale vaccination campaigns have been planned for the affected and neighbouring areas.

Source: beaconbio.org

- Foot & mouth disease - China: (Gansu, Xinjiang Uyghur) cattle, serotype SAT1, cull
- Foot & mouth disease - China (02): (Gansu, Xinjiang) cattle, serotype SAT1, cull, tightened border control
- Foot & mouth disease - China (03): (Gansu, Xinjiang) cattle, serotype SAT1, vaccine stock, emergency response
- Foot & mouth disease - China (04): (multiple provinces) cattle, serotype SAT1, spread
- Foot & mouth disease - China (05): multiple provinces, livestock, high mortality rates
- Foot & mouth disease - China (06): multiple regions, livestock, prevention and control
- Foot & mouth disease - China (07): cattle, serotype SAT 1, WOA
- Foot & mouth disease - China (08): multiple species, serotype SAT 1, spread
- Foot & mouth disease - China (09): (Gansu) cattle, serotype SAT 1, woah
- Foot & mouth disease - China (10): livestock, serotype SAT1, vaccine availability, tighten control

ProMED posts: [8731948](#),
[8731967](#), [8732062](#),
[8732113](#), [8732139](#),
[8732234](#), [8732264](#),
[8732326](#), [8732520](#) &
[8732642](#)

The Republic of Indonesia

A batch of 43 samples (originating from 40 cattle, 2 pigs and 1 goat from locations across the country) was received on 5th February 2026. **FMD type O** was detected in 20 of the samples, 4 samples were determined to contain **untyped FMD** and no virus was detected in 10 samples. Phylogenetic analysis placed all of the FMD type O sequences into the Middle East-South Asia (ME-SA) topotype and Ind-2001e lineage (see below).

In April, outbreaks of **untyped FMD** in domestic mammals from various locations across the country were reported by the national authorities on the FAO's Empres-i+ system.

Empres-i+ event IDs: [UNFAO-HQ-45122](#), [UNFAO-HQ-45129](#), [UNFAO-HQ-45143](#), [UNFAO-HQ-45145](#),

- Foot & mouth disease - Indonesia (02): (East Java) cattle, fatal ProMED posts: [8731930](#),
- Foot & mouth disease - Indonesia (03): (West Java) [8732260](#) & [8732992](#)
intercepted cowhides
- Foot & mouth disease - Indonesia (04): (East Java) cattle,
sudden death, suspected

Malaysia



A second outbreak (starting in late March) of **FMD type A** was reported during this quarter. This outbreak was located in Kampung Parit Sawah, Kundang mukim, Tangkak daerah, Johor State and affected cattle (n=6). No new outbreaks associated with the FMD type O event previously reported to WOA (WAHIS event ID: 7184) were detected during this quarter.

WAHIS event ID: [7322](#)

- Foot & mouth disease - Malaysia (03): (Johor) cattle, serotype A, WOA ProMED post: [8733429](#)

Mongolia



On 5th May 2026, a batch of 4 samples was received (originating from two cattle and two sheep from Sühbaatar Aymag). Testing and phylogenetic analysis determined all samples to be **FMD type O** belonging to the Middle East-South Asia (ME-SA) topotype and Ind-2001e lineage (see below).

A second batch of 4 samples (originating in Yak from Altay, Bayan-Ölgiy Aymag was received on 1st June 2026. Testing and phylogenetic analysis determined all samples to be **FMD type SAT 1** belonging to the SAT 1/III topotype (see below).

FMD type SAT 1 was detected for the first time in Mongolia in May. Two outbreaks were reported: cattle (n=30) from a farm in Altai sum, Bayan-Ölgiy Province starting on 21 May 2026 and cattle (n=32) from a farm in Bulgan sum, Khovd Province starting on 27 May 2026. Various control measures, including quarantine, movement control and culling, have been implemented in response.

Additionally, a single outbreak of **FMD type O** was reported via WAHIS on 17 June 2026 in sheep (n=35) from a farm in Ikhkheth, Dornogovi. No control measures have been reported in response to this outbreak.

WAHIS event ID: [7634](#) & [7574](#)

In late May 2026 the first detection of FMDV type SAT 1 in western Mongolia was made in cattle on a farm in Chikhertei, Khar Nuur subdistrict, Altai district, Bayan-Ölgiy Province. Along with a second outbreak of untyped FMD in Bulgan district of Khovd Province – which was later determined to also be FMD type SAT 1. A third outbreak of FMD (as yet untyped) was detected in early June in Gurbansaikhan and Adaatsag districts, Dundgovi Province in southern Mongolia.

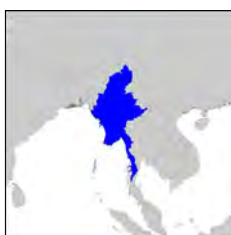
Vaccination against the SAT 1 serotype has not been previously undertaken, leaving the animal population susceptible to infection with this serotype.

Source: [beaconbio.org](#)

- Foot & mouth disease - Mongolia (03): (Bayan-Olgii) cattle, serotype SAT 1, new strain, WOAHA
- Foot & mouth disease - Mongolia (04): (Khovd) livestock, confirmed
- Foot & mouth disease - Mongolia (05): (Bayan-Ulgii) livestock, cull
- Foot & mouth disease - Mongolia (06): (Bayan-Ulgii) livestock, cull, quarantine measures and movement restrictions
- Foot & mouth disease - Mongolia (07): (Hovd) cattle, serotype SAT1, WOAHA
- Foot & mouth disease - Mongolia (08): (Dundgovi) livestock, spread, quarantine
- Foot & mouth disease - Mongolia (09): (Bayan-Ulgii, Hovd) livestock, serotype SAT1, cull
- Foot & mouth disease - Mongolia (10): (Dornogovi) sheep, serotype O, WOAHA
- Foot & mouth disease - Mongolia (11): livestock, serotype SAT1, vaccination campaign

ProMED posts: [8733225](#), [8733266](#), [8733330](#), [8733346](#), [8733388](#), [8733421](#), [8733492](#), [8733665](#) & [8733817](#)

The Republic of the Union of Myanmar



Foot & mouth disease - Myanmar: cattle, buffalo, import ban
ProMED post: [8732500](#)

The Republic of Korea



A third outbreak of **FMD type O** was posted on WAHIS this quarter. This occurred in cattle (n=160) from Gusan-dong, Ilsanseo-gu, Goyang-si, Gyeonggi-do.

WAHIS event ID: [7249](#)

- Foot & mouth disease - South Korea (09): cattle, serotype O, WOAHA

ProMED post: [8732540](#)

The Socialist Republic of Viet Nam



In early June, outbreaks of **FMD types O** and **A** were reported by the national authorities on the FAO's EMPRES-i+ system in the north of the country:

- FMD type O and A was reported in domestic cattle from Nghiên Loan commune, Pác Nặm District, Bắc Kạn Province;
- FMD type A was reported in domestic Buffalo in Trùng Khánh commune, Trùng Khánh District, Cao Bằng province;

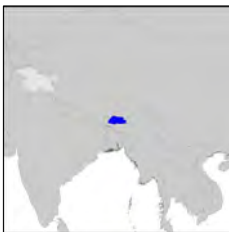
- FMD type A was reported in domestic swine and buffalo in Đàm Thủy commune, Trùng Khánh District, Cao Bằng province.

Empres-i+ event IDs: [UNFAO-HQ-49599](#), [UNFAO-HQ-49618](#), [UNFAO-HQ-49695](#) & [UNFAO-HQ-49697](#)

- | | |
|---|---|
| <ul style="list-style-type: none"> • Foot & mouth disease - Viet Nam: risk from transport of livestock and livestock products, alert • Foot & mouth disease - Viet Nam (02): (Cao Bang, Thai Nguyen) livestock, serotype A, active prevention and control • Foot & mouth disease - Viet Nam (03): (Thái Nguyên) livestock, serotypes A, O, high risk, alert • Foot & mouth disease - Viet Nam (04): (Thai Nguyen) livestock, serotypes A and O, cattle market temporarily suspends operations • Foot & mouth disease - Viet Nam (05): (Cao Bằng) livestock, serotype A, strengthening prevention and control • Foot & mouth disease - Viet Nam (06): (Tuyen Quang) livestock, serotype sat1, proactive response | <p>ProMED posts: 8732539, 8733518, 8733541, 8733544, 8733575, 8733608 & 8732285</p> |
|---|---|

3.3. Pool 2 (South Asia)

The Kingdom of Bhutan



A batch of 21 samples (originating from cattle from locations across the country) was received on 30th January 2026. **FMD type O** was identified by ag-ELISA in 7 of the samples, **untyped FMDV** in 8 of the samples, and no virus was detected in the remaining 6 samples. Phylogenetic analysis placed all of the FMD type O samples into the Middle East-South Asia (ME-SA) topotype and Ind-2001e lineage (see below).

A second batch of 3 samples (originating from Dagana, Samtse and Sarpang districts) was received on 12th June 2026. An **FMD type O** was cultured in 1 sample and **untyped FMD** being determined for the other 2 samples. Phylogenetic analysis determined the FMD type O sample to belong to the Middle East-South Asia (ME-SA) topotype and Ind-2001e lineage. Sequencing was also successful for one of the two samples which failed to propagate in cell culture; phylogenetic analysis determined this sample to be serotype O, Middle East-South Asia (ME-SA) topotype and Ind-2001e lineage (see below).

3.4. Pool 3 (West Eurasia and Near East)

Armenia



Passive and active surveillance for FMD is used in Armenia, as well as awareness-raising activities for farmers and the veterinary services. During this quarter, over 810,000 large and small ruminants were vaccinated with a multivalent vaccines (combinations of O, A, Asia 1, SAT 1 and SAT 2 serotypes) and almost 28,000 large ruminants with a monovalent SAT 1 vaccine in border areas.

[EuFMD FAST Report](#)

The Republic of Azerbaijan



Passive and active surveillance is undertaken across the country. During this period over 6 million animals were vaccinated against O, A, Asia 1, SAT 1 and SAT 2 serotypes.

[EuFMD FAST Report](#)

Georgia



Passive surveillance is in use in the country and a seromonitoring survey is on-going. During this quarter, >1 million animals have been vaccinated against FMD (O, A, Asia 1 SAT 1 and SAT 2 serotypes).

[EuFMD FAST Report](#)

The Islamic Republic of Iran



Samples collected in 2025 confirm the presence of FMD type SAT 1 (topotype III) in the country. Near identical genetic sequences to recent samples from nearby countries suggest transboundary spread of this topotype in the region. The SAT 1 serotype is not currently included in the country's vaccination program, which potentially increases livestock susceptibility to this serotype.

Source: beaconbio.org

The Republic of Iraq



83 outbreaks were reported from various governates this quarter, with an additional 8 outbreaks reported from the Kurdistan region. Passive surveillance has been implemented in the Kurdistan region and data from 15 veterinary hospitals across Iraqi governorates collected. There is currently no vaccination in the country, but free medical treatment is provided to both small and large-scale farm breeders during active outbreaks to mitigate direct production losses

[EuFMD FAST Report](#)

The State of Israel and The Golan Heights



A batch of 22 samples from Israel (originating in 2 sheep and 14 cattle from locations across the country) and the Golan Heights (6 cattle) was received on 21st May 2026. From Israel **FMD type O** was detected in 10 samples and **FMD type SAT 1** in 6 samples.

From the Golan Heights **FMD SAT 1** was detected in 5 samples and **untyped FMD** in 1 sample.

Phylogenetic analysis of the samples from Israel and The Golan Heights is on-going and will be reported in the next report.

During this quarter, 8 outbreaks of **FMD type SAT 1** have been reported from the Haifa and HaZafon districts of Israel and the Golan heights. Cattle (n=241), Sheep (n=51) and *Gazella gazella* (n=3) have all been affected.

WAHIS event ID: [7207](#)

FMD type SAT 1 has continued to be diagnosed in herds across Israel and the Golan heights this quarter. Mandatory biosecurity measures, including animal movement restrictions and an intensive vaccination campaign, are being used to try and control the spread of the disease.

Source: beaconbio.org

The Hashemite Kingdom of Jordan



Passive surveillance for FMD is established and a pilot initiative for syndromic surveillance for the early detection of FAST diseases is ongoing. Over 430,000 animals have been vaccinated using a vaccine containing serotypes O, A, SAT 2.

[EuFMD FAST Report](#)

Palestine



FMD type SAT 1 was detected for the first time in Palestine. Two outbreaks in West Bank were reported in early April via WAHIS. A single case in cattle from a village in Qalqilya was reported on 5th April, then a second outbreak in Sheep (n=155) and goats (n=3) was reported from a farm in Hebron on 14 April. Various control measures, including quarantine, disinfection and movement controls, have been put in place in response to the outbreaks.

WAHIS event ID: [7422](#)

An outbreak of FMD type SAT 1 was confirmed in Ezpet Salman village, Qalqilya, West Bank in late March. The Palestinian Authority has secured vaccines through Jordan and the FAO and by early April had vaccinated over 13,000 dairy cows.

Source: beaconbio.org

Two outbreaks of FMD type SAT 1, occurring in March, were reported this quarter.

[EuFMD FAST Report](#)

The Syrian Arab Republic



Two **FMD type SAT 1** sequences (originating in cattle from the Hama and Homs governates) were retrieved from GenBank submitted by the Faculty of Veterinary Medicine, Hama University. Both sequences were determined to belong to the SAT 1/III topotype (see below).

Outbreaks of FMD are suspected in several governates (Deir ez-Zor, Aleppo, Hama and Damascus). Passive surveillance is being conducted nationwide, and active surveillance is being conducted in those governorates with suspected FMD outbreaks. Over 350,000 cattle and 30,000 sheep have been vaccinated this quarter.

[EuFMD FAST Report](#)

The Republic of Türkiye



A batch of 28 samples (originating in cattle (n=23) and sheep (n=5) from locations across the country) was received on 20th February 2026. **FMD type O** was detected in 7 of the samples, 13 samples were determined to contain **FMD type SAT 1**, 5 samples **FMD type SAT 2** and 1 sample **untyped FMD**. No virus was detected in 2 samples.

Phylogenetic analysis placed all of the FMD type O samples into the Middle East-South Asia (ME-SA) topotype and SA-2018 lineage. For the FMD type SAT 1 samples, 3 samples were determined to belong to the SAT 1/I topotype and 10 samples to the SAT 1/III topotype. All 4 FMD type SAT 2 samples were determined to belong to the SAT 2/XIV topotype (see below).

During this quarter there were 8 outbreaks of FMD, caused by serotypes O and SAT 1. There is passive and active surveillance for FMD in the country. Vaccination campaigns this quarter have vaccinated over 2.8 million animals with a pentavalent (O, A, Asia-1, SAT 1 & SAT 2) vaccine

[EuFMD FAST Report](#)

3.5. Pool 4 (North and Eastern Africa)

The Arab Republic of Egypt



A historical outbreak of **untyped FMD** in cattle from a farm in Al-Husayniyah, Ash Sharqiyah Governate in 2025 was reported via WAHIS this quarter.

WAHIS event ID: [7459](#)

During this quarter, a clinical survey covering more than 5200 villages and over 380 markets has been completed, while vaccination has been achieved for almost 3.5 million animals.

[EuFMD FAST Report](#)

The State of Libya



Two FMD type O events were reported via WAHIS from Libya this quarter. One event, consisting of a single outbreak affecting cattle (n=3) and sheep (n=4), began at the beginning of May in Tajoura, Tripoli district in the northwest of the country. The second event, starting in late June, consists of 4 outbreaks from Misratah and Tripoli districts. These outbreaks were detected as part of active surveillance being undertaken

to determine the extent of FMD in the country. Cattle (n=32) and sheep (n=26), from unvaccinated herds, were the affected species.

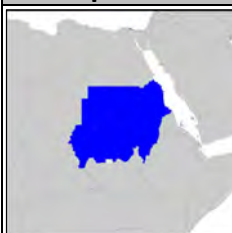
WAHIS event IDs: [7531](#) & [7645](#)

5 outbreaks of FMD type O were reported in the country from May onwards.

Passive and active surveillance is used in the country - with samples being sent to IZSLER, Italy for analysis.

[EuFMD FAST Report](#)

The Republic of the Sudan



A notification of a historical outbreak of **untyped FMD** in Sudan was made via WAHIS on 13 May 2026. This related to a single outbreak in cattle (n=15) from Alfaw, Shuwak, Al Faw district, Al Qadarif state, Sudan from September 2025.

WAHIS event IDs: [7522](#)

The United Republic of Tanzania



A notification of an outbreak of **untyped FMD** in Tanzania was made via WAHIS on 3 June 2026. This related to a single outbreak in cattle (n=1) from Ipunga, Ipunga district, Mbozi, Songwe Region, Tanzania from March 2026. Surveillance without a restriction zone was implemented as a control measure in response to the outbreak.

WAHIS event IDs: [7397](#)

The Republic of Uganda



The Ugandan Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) announced on 14 June that mandatory FMD vaccination for cattle, goats, sheep and pigs will start in July 2026.

[MAAIF LinkedIn account](#)

Foot & mouth disease - Uganda (02): (Sembabule) outbreak sparks fear among farmers

ProMED post: [8733607](#)

3.6. Pool 5 (West/Central Africa)

The Republic of Mali

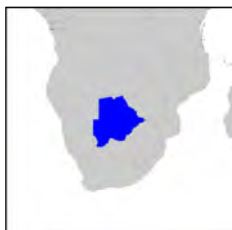


A notification of a historical outbreak of **untyped FMD** in Mali was made via WAHIS on 16 June 2026. This related to a single outbreak in cattle (n=15) from Signè, Koutiala commune, Koutiala cercle, Sikasso Region, Mali from September 2025.

WAHIS event ID: [7636](#)

3.7. Pool 6 (Southern Africa)

The Republic of Botswana



Two **FMD type SAT 1** sequences (originating in bovines from Ramatlabama, Barolong Subdistrict, Southern District and North-East District) were received from BVI, Botswana, on 3rd April 2026, for phylogenetic analysis. Both sequences were determined to belong to the SAT 1/III toptype (see below).

Two **FMD type SAT 1** sequences (originating in bovines from Ramatlabama, Barolong Subdistrict, Southern District) were received from BVI, Botswana on 12th April 2026, for phylogenetic analysis. Both sequences were determined to belong to the SAT 1/III toptype (see below).

A total of 22 outbreaks of **FMD type SAT 1** were reported from the beginning of April via WAHIS. Cattle (n=216) in fenced farms along the international boundary with South Africa were detected with clinical signs consistent with FMD. Subsequent laboratory investigations detected SAT 1 as the causative serotype.

No further cases have been detected this quarter in the north-west of the country where FMD type SAT 1 was detected near the border with Zimbabwe in late January.

WAHIS event IDs: [7240](#) & [7420](#)

Suspected **FMD type** was confirmed on two farms in the Banyana Farms area in late May (in zone 11, near the border with South Africa. Surveillance and containment measures are active in this zone (as well as zone 13) and cumulative vaccination coverage has reached 82%.

Source: beaconbio.org

- Foot & mouth disease - Botswana (02): cattle, temporary abattoir closure, expanding outbreak ProMED posts: [8732384](#), [8732766](#) & [8732766](#)
- Foot & mouth disease - Botswana (03): cattle, economic losses
- Foot & mouth disease - Botswana (04): (Southern) cattle, expanding outbreak

The Kingdom of Eswatini



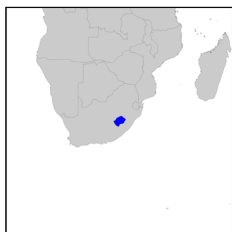
Four **FMD type SAT 1** sequences (originating in bovines from the Manzini Region) were received from BVI, Botswana, on 3rd April 2026, for phylogenetic analysis. One sequence was determined to belong to the SAT 1/II toptype, while the other 3 sequences were determined to belong to the SAT 1/III toptype (see below).

Two **FMD type SAT 2** sequences (originating in bovines from the Shiselweni Region) were received from BVI, Botswana, on 4th April 2026, for phylogenetic analysis. Both sequences were determined to belong to the SAT 2/I toptype (see below).

During this quarter 23 **FMD type SAT 1** outbreaks were reported via WAHIS. Most of the outbreaks occurred in Hhohho Region where 16 outbreaks in cattle (n=301) were recorded. Six outbreaks in cattle (n=27) were reported from Manzini Region and a single outbreak also in cattle (n=1) was reported from Lubombo region.

WAHIS event IDs: [6895](#) & [7308](#)

The Kingdom of Lesotho



Two **FMD type SAT 1** sequences (originating in bovines from the Mahlasela, Butha-Buthe district) were received from BVI, Botswana, on 3rd April 2026, for phylogenetic analysis. Both sequences were determined to belong to the SAT 1/III topotype (see below).

Eight **FMD type SAT 1** sequences (originating in 5 bovines from the Maseru district and 3 bovines from unstated locations in Lesotho) were received from BVI, Botswana, on 3rd April 2026, for phylogenetic analysis.

All sequences were determined to belong to the SAT 1/III topotype (see below).

During this quarter, 19 outbreaks of **FMD type SAT 1** from locations across the country were reported via WAHIS. One outbreak affected animals in a mixed herd of sheep and goats (n=6). All other outbreaks affected cattle (n=132).

WAHIS event IDs: [7279](#), [7327](#), [7332](#),
[7338](#), [7351](#), [7380](#) & [7428](#)

The Republic of South Africa



In this quarter, via WAHIS, 663 **FMD type SAT 2** outbreaks in cattle were reported in Eastern Cape (n=83) Free State (n=240), Gauteng (n=43), KwaZulu-Natal (n=108), Limpopo (n=26), Mpumalanga (n=47), North West (n=100), and Northern Cape (n=6) and Western Cape (n=10) provinces; totalling 15676 cases in cattle, 13 in goats, 2 in sheep and 1112 in swine.

For **FMD type SAT 1** a total of 553 outbreaks were also reported from Eastern Cape (n=215), Free State (n=76), Gauteng (n=26), KwaZulu-Natal (n=13), Limpopo (n=24), Mpumalanga (n=77), North West (n=101), Northern Cape (n=17) and Western Cape (n=4); totalling 7318 cases in cattle, 1 in goats, 1 in Sable antelope (*Hippotragus niger*) and 1 in Cape Buffalo (*Syncerus caffer*).

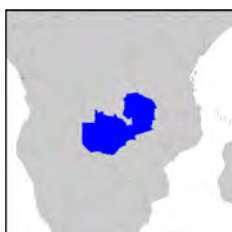
No FMD type SAT 3 has been reported (WAHIS event ID: 5658) in the country since 28 March 2025.

WAHIS event IDs: [3738](#) & [6930](#)

- Foot & mouth disease - South Africa (09): (Free State) livestock, multiple outbreaks
- Foot & mouth disease - South Africa (10): vaccination
- Foot & mouth disease - South Africa (11): (Free State) surge, vaccination drive

ProMED posts: [8732187](#),
[8733164](#) & [8733548](#)

The Republic of Zambia



Three **FMD type SAT 1** sequences (originating in bovines from Shangombo District, Western Province) were received from BVI, Botswana, on 12th April 2026, for phylogenetic analysis. All sequences were determined to belong to the SAT 1/III topotype (see below).

Two reports of FMD in Zambia were made via WAHIS this quarter.

On 10 April a single outbreak of **FMD type SAT 1** (starting on 2 February 2026) was reported in cattle (n=69) from Sioma, Shangombo district, Western province.

The control measures of movement control, surveillance and vaccination were implimented in response to the outbreak.

On 8 May a single historical outbreak of untyped FMD from May 2025 was reported in cattle (n=69) from Mazabuka district, Southern province.

WAHIS event IDs: [7435](#) & [7455](#)

The Republic of Zimbabwe



Four **FMD type SAT 2** sequences (originating from bovines in Bikita District, Masvingo Province) were received from BVI, Botswana, on 4th April 2026, for phylogenetic analysis. These sequences were all determined to belong to the SAT 2/I topotype. (see below).

3.8. Pool 7 (South America)

No new outbreaks of FMD were reported in South America.

3.9. Europe

Cyprus



A **FMD type SAT 1** sequence (originating in cattle from Larnaca District) was received from ANSES, France for phylogenetic analysis. This sequence was determined to belong to the SAT 1/III topotype (see below).

Further outbreaks of **FMD type SAT 1** are being reported via WAHIS this quarter from the event that started in February: 36 from Nicosia, 35 from Larnaca district and 1 from Limassol district.

The event continues to develop with outbreaks reported in May from Limassol district (12 cases in a mixed herd of sheep/goats) is the first occurrence of the FMD outside of the Nicosia and Larnaca districts.

As in the report from last quarter, sheep and goats make up the largest group of affected animals - 32 outbreaks in mixed herds of sheep/goats (n=655); 26 outbreaks in sheep (n=652) and 6 outbreaks in goats (n=66). Three outbreaks report disease in swine (n=21) for the first time in this event and a further 6 outbreaks were reported in cattle (n=86).

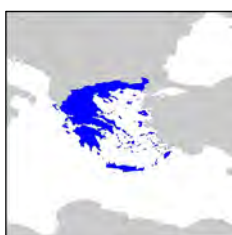
WAHIS event IDs: [7280](#)

During this quarter, almost 70 new cases of FMD type SAT 1 were detected. With most of the cases concentrated in the Larnaca and Nicosia districts. On the 15 April the first case in domestic pigs was diagnosed on a farm in Paliometochos, Nicosia District. The first case outside of Larnaca and Nicosia districts was diagnosed on 19 May – on a farm in Pachna Limassol District.

In response to the outbreak 81% of cattle, 64% of the sheep/goat population and all pig farms in restricted areas have been vaccinated. Additionally, more than 70,000 animals have been culled with the culling reducing the country's total sheep/goat population by approximately 10%.

Source: [beaconbio.org](#)

Greece



Outbreaks of **FMD type SAT 1** continue to be reported via WAHIS from locations on the Island of Lesbos, Greece. A total of 123 outbreaks affecting sheep (n=5395), goats (n=135), animals in mixed herds of sheep/goats (n=1852) and cattle (n=8) have been reported this quarter. While present, no cases have been currently been recorded in swine, though 35 have been killed and disposed of.

WAHIS event IDs: [7379](#)

One hundred FMD type SAT 1 outbreaks have been confirmed on the island of Lésvos during April, May and the first half of June. Extensive control measures, including quarantine and movement restrictions have been implemented in response to the outbreaks. By mid-June over 37,000 animals on the island had been culled under a whole-herd stamping-out policy.

Source: [beaconbio.org](#)

3.10. Extent of global surveillance

In regions where FMD is endemic, continuous evolution of the virus generates geographically discrete lineages that are genetically distinct from FMD viruses found elsewhere. This report displays how different FMD lineages circulate in different regions; these analyses accommodate the latest epidemiological intelligence to assess the relative importance of the viral strains circulating within each region (see Table 1, below).

Table 1: Conjectured relative prevalence of circulating FMD viral lineages in each Pool (last updated October 2025). These scores can be used to inform the PRAGMATIST tool (see Annex 3:).

Lineage	South-east / Central / East Asia [Pool 1]	South Asia [Pool 2]	West Eurasia & Near East [Pool 3]	North Africa	Eastern Africa [Pool 4]	West / Central Africa [Pool 5]	Southern Africa [Pool 6]	South America [Pool 7]
O/ME-SA PanAsia-2			25					
O/ME-SA PanAsia	10							
O/SEA Mya-98	15							
O/ME-SA Ind2001	43	21	3	0				
O/ME-SA/SA-2018		61	13					
O/EA or O/WA			1	58	62.5	60	16	
O/EURO-SA						0		90
O/CATHAY	17							
A/ASIA Sea-97	15							
A/ASIA Iran-05	0	0	20					
A/ASIA G-VII		15	0					
A /AFRICA				24	12	15		
A/EURO-SA				2				10
Asia1	0	3	5					
SAT 1			21	4	15	1	8	
SAT 2			12	12	10	24	57	
SAT 3					0.5		19	
C								

Note: For each of the regions, data represent the relative importance of each viral lineage (prevalence score estimated as a percentage [percent] of total FMD cases that occur in domesticated hosts). These scores are reviewed at the annual WOA/FAO FMD reference laboratory network meeting. Changes to increase risks are shown in **red**, while a reduction in risk is shown in **green**.

A number of outbreaks have occurred where samples have not been sent to the WRLFMD or other laboratories in the WOA/FAO FMD Laboratory Network. An up-to-date list and reports of FMD viruses characterised by sequencing can be found at the following website: <http://www.wrlfmd.org/country-reports/country-reports-2026>.

Results from samples or sequences received at WRLFMD (status of samples being tested) are shown in Table 2 and a complete list of clinical sample diagnostics made by the WRLFMD from April - June 2026 is shown in Annex 1: (Summary of submissions). A record of all samples received by WRLFMD is shown in Annex 1: (Clinical samples).

Table 2: Status of sequencing of samples or sequences received by the WRLFMD from April - June 2026.

WRLFMD Batch No.	Date received	Country	Total No. samples	Serotype	No. of samples	No. of sequences	Sequencing status
WRLFMD/2026/000003	30/01/2026	Bhutan	21	O FMDV GD	7 8	7 0	Finished
WRLFMD/2026/000005	05/02/2026	Indonesia	43	O FMDV GD	20 13	20 0	Finished
WRLFMD/2026/000006	20/02/2026	Turkey	28	O SAT 1 SAT 2 FMDV GD	7 13 5 1	7 13 5 0	Finished
WRLFMD/2026/000009	05/05/2026	Mongolia	4	O	4	4	Finished
WRLFMD/2026/000011	21/06/2026	Israel	22	O SAT 1 FMDV GD	10 11 1		In progress
WRLFMD/2026/000012	01/06/2026	Mongolia	4	SAT 1	4	4	Finished
WRLFMD/2026/000014	12/06/2026	Bhutan	3	O FMDV GD	1 2	2 *	Finished
Totals			125		107	62	

* One sample, that was originally reported as FMDV GD, was successfully sequenced and determined to be serotype O

Table 3: VP1 sequences submitted by other FMD laboratories to the WRLFMD from April - June 2026.

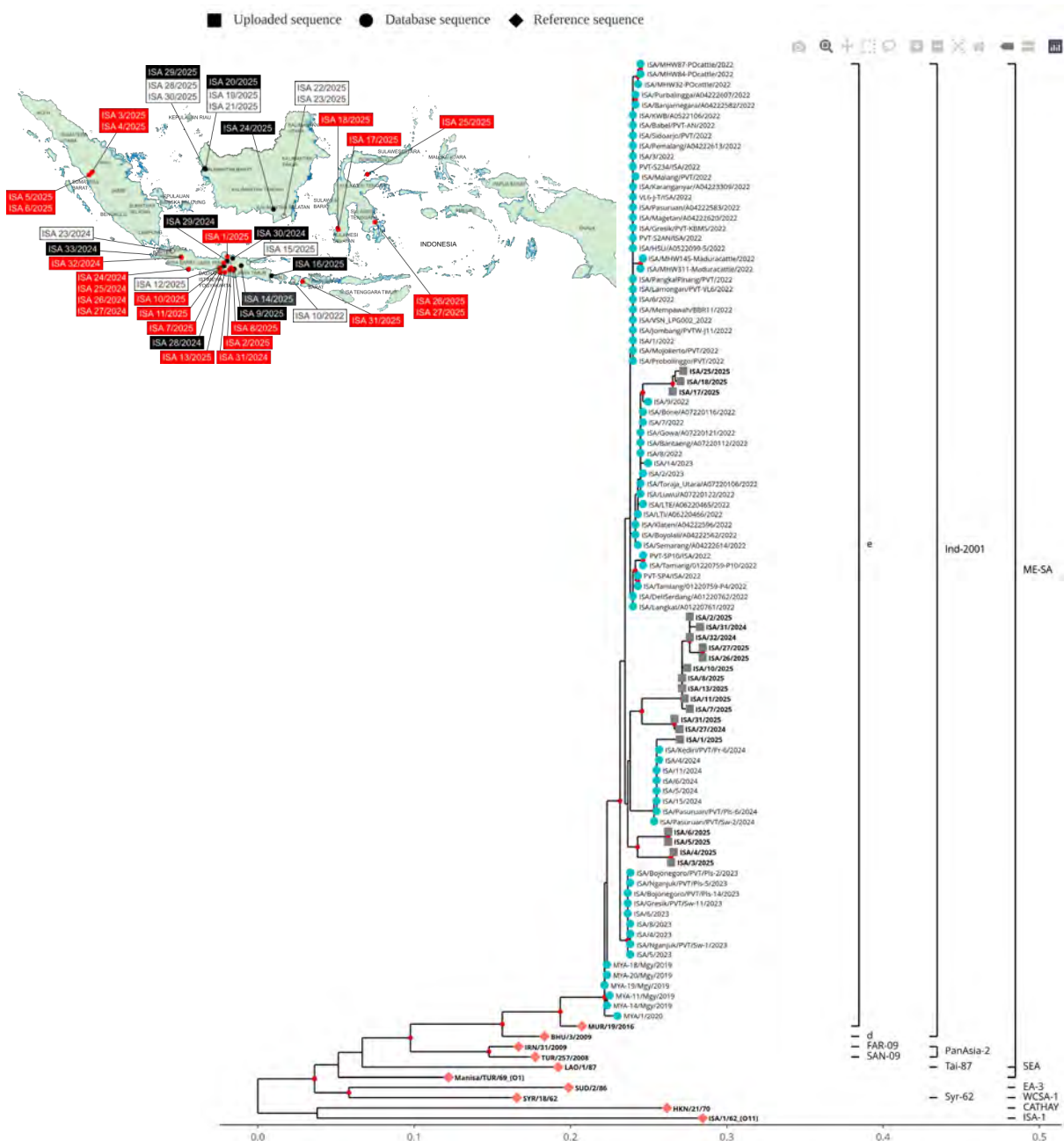
WRLFMD Batch No.	Date received	Country	Serotype	Date Collected	No. of sequences	Submitting laboratory
WRLMEG/2026/000011	00/01/1900	Cyprus	SAT 1	February 2026	1	ANSES, France
WRLMEG/2026/000012	03/04/2026	Botswana	SAT 1	Feb & Mar 2026	2	BVI, Botswana
WRLMEG/2026/000013	03/04/2026	Lesotho	SAT 1	February 2026	2	BVI, Botswana
WRLMEG/2026/000014	03/04/2026	Eswatini	SAT 1	January 2026	4	BVI, Botswana
WRLMEG/2026/000015	04/04/2026	Zimbabwe	SAT 2	April 2025	4	BVI, Botswana
WRLMEG/2026/000016	04/04/2026	Eswatini	SAT 2	June 2025	2	BVI, Botswana
WRLMEG/2026/000017	09/04/2026	Syria	SAT 1	January 2026	2	Hama University, Syria
WRLMEG/2026/000018	12/04/2026	Botswana	SAT 1	April 2026	2	BVI, Botswana
WRLMEG/2026/000019	12/04/2026	Lesotho	SAT 1	Feb & Mar 2026	8	BVI, Botswana

WRLFMD Batch No.	Date received	Country	Serotype	Date Collected	No. of sequences	Submitting laboratory
WRLMEG/2026/000020	12/04/2026	Zambia	SAT 1	March 2026	3	BVI, Botswana
Total					30	

4. Detailed analysis

4.1. Pool 1 (Southeast Asia/Central Asia/East Asia)

The Republic of Indonesia	
Batch:	WRLFMD/2026/000005
Samples/sequences provided by:	Pusat Veteriner Farma, Indonesia
Date Received:	5 February 2026
Number Of Samples:	20
O (O/ME-SA/Ind-2001e)	20



Mongolia	
Batch:	WRLFMD/2026/000009
Samples/sequences provided by:	State Central Veterinary Laboratory, Mongolia
Date Received:	5 May 2026
Number Of Samples:	4
O (O/ ME-SA/Ind-2001e)	4

Batch:

WRLFMD/2026/000009

Samples/sequences provided by:

State Central Veterinary Laboratory, Mongolia

Date Received:

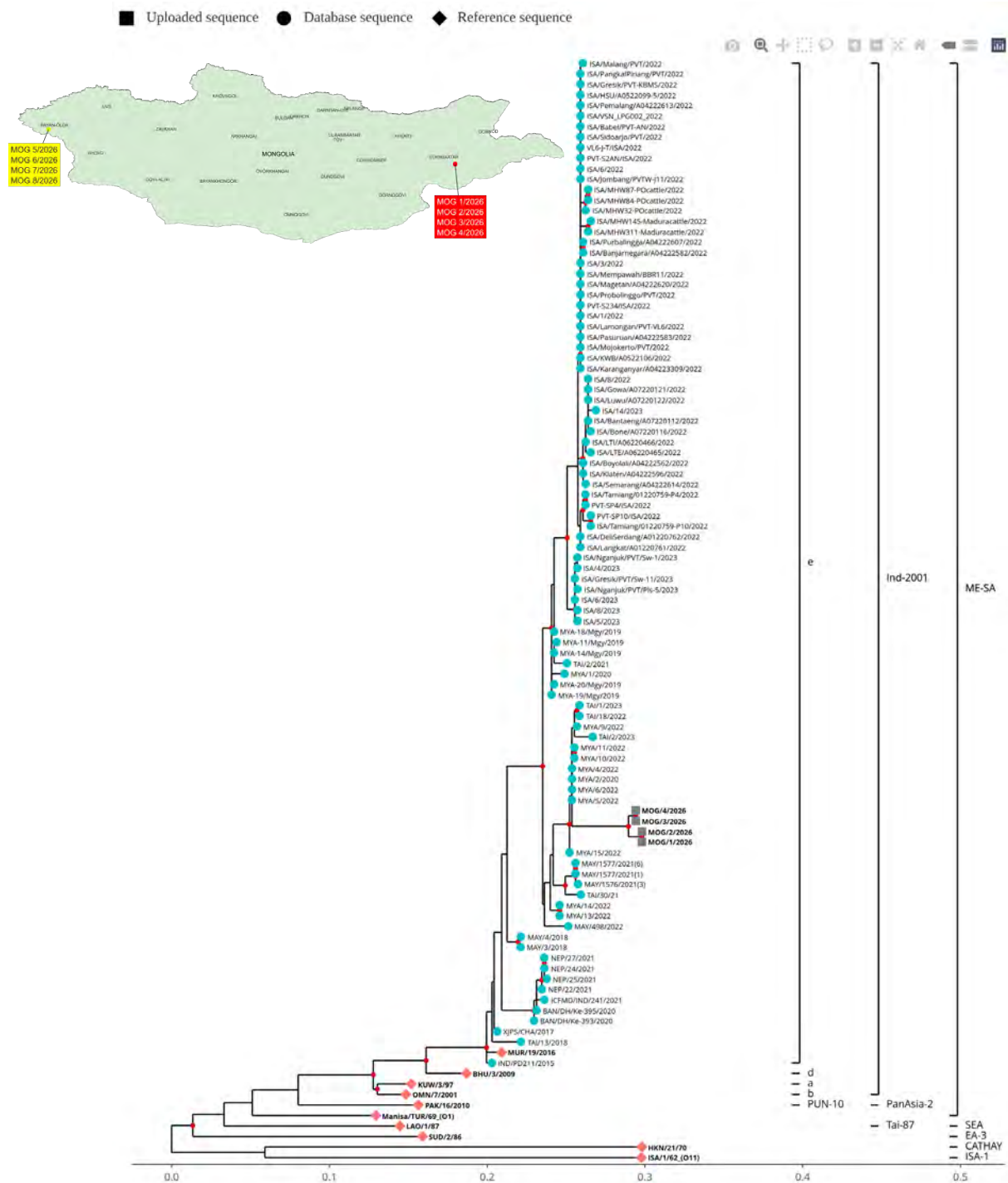
5 May 2026

Number Of Samples:

4

O (O/ ME-SA/Ind-2001e)

4



Mongolia

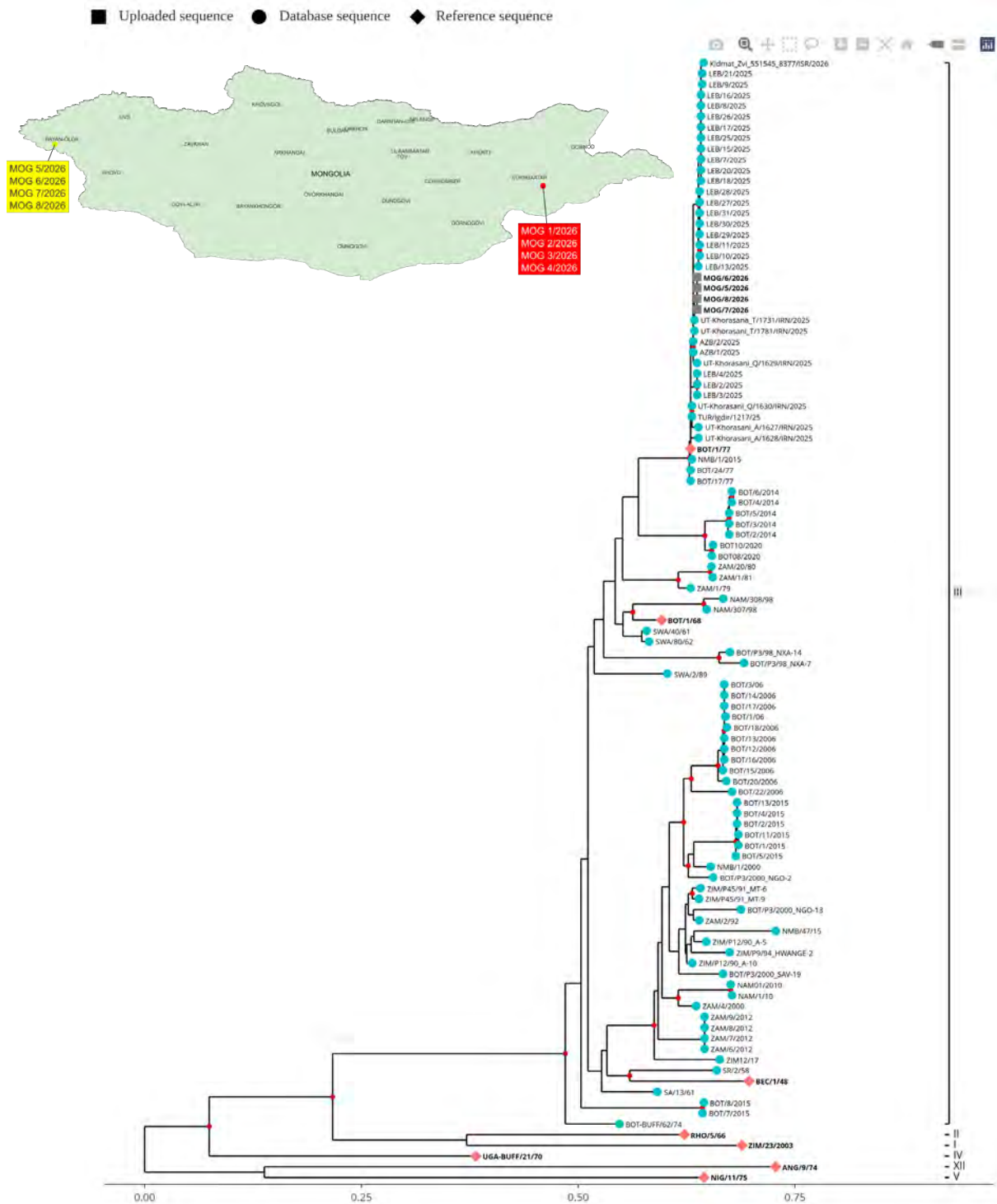
Batch: WRLMEG/2026/000012

Samples/sequences provided by: State Central Veterinary Laboratory, Mongolia

Date Received: 1 June 2026

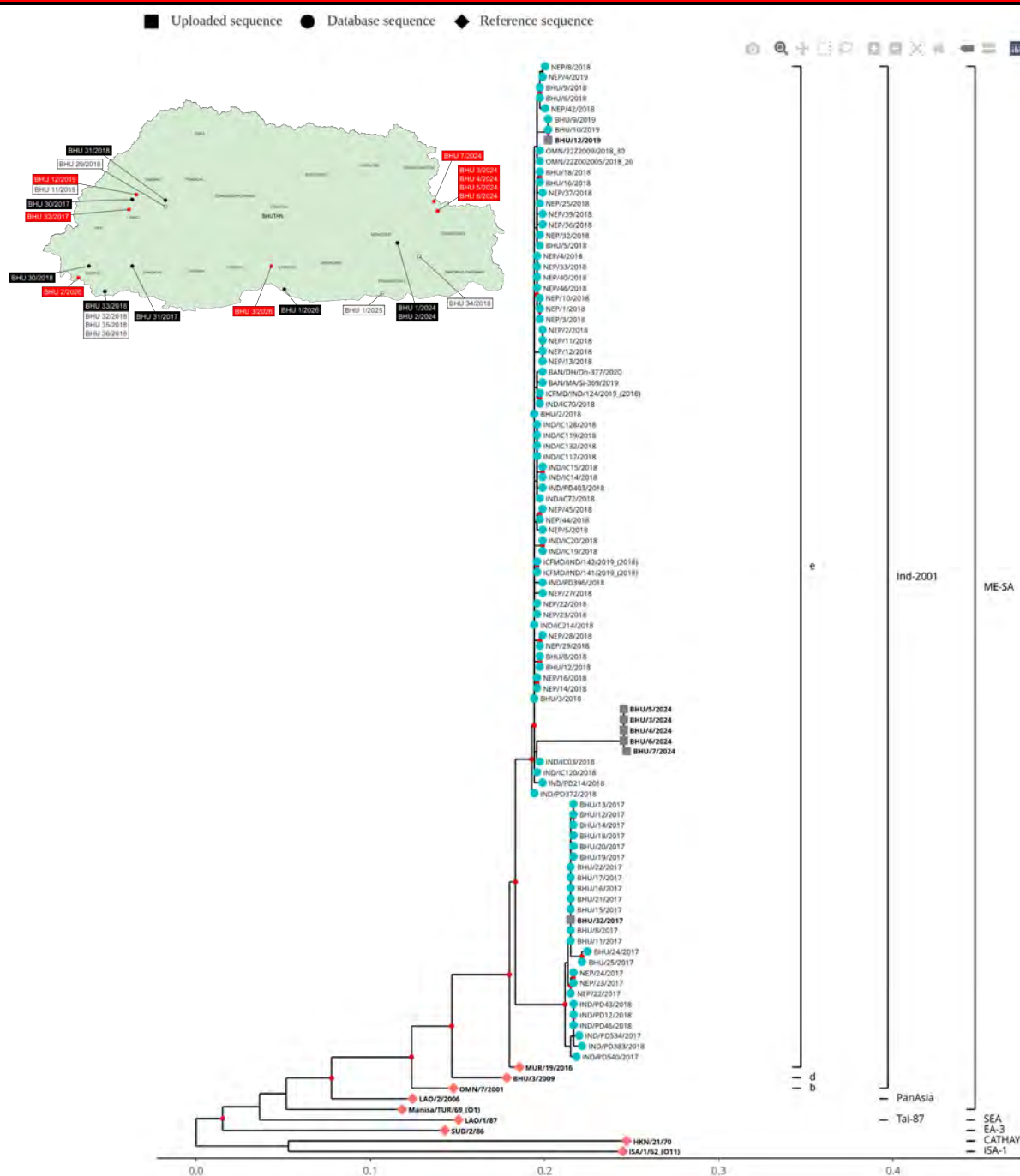
Number Of Samples: 4

SAT 1 (SAT 1/III (WZ)) 4



4.2. Pool 2 (South Asia)

The Kingdom of Bhutan	
Batch:	WRLFMD/2026/000003
Samples/sequences provided by:	National Centre for Animal Health, Bhutan
Date Received:	30 January 2026
Number Of Samples:	7
O (O/ ME-SA/Ind-2001e)	7



The Kingdom of Bhutan

Batch:

WRLFMD/2026/000014

Samples/sequences provided by:

National Centre for Animal Health, Bhutan

Date Received:

12 June 2026

Number Of Samples:

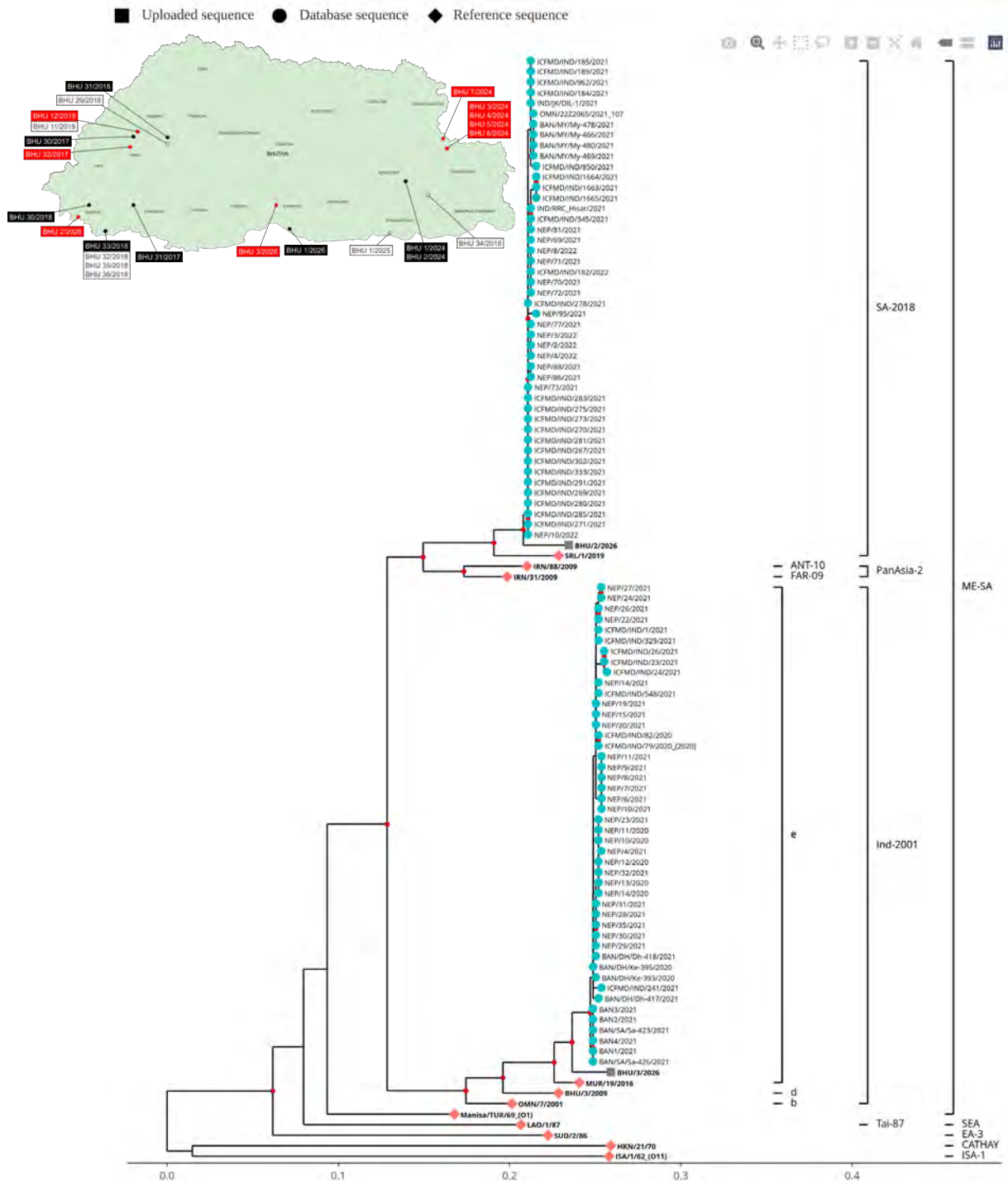
2

O (O/ ME-SA/Ind-2001e)

1

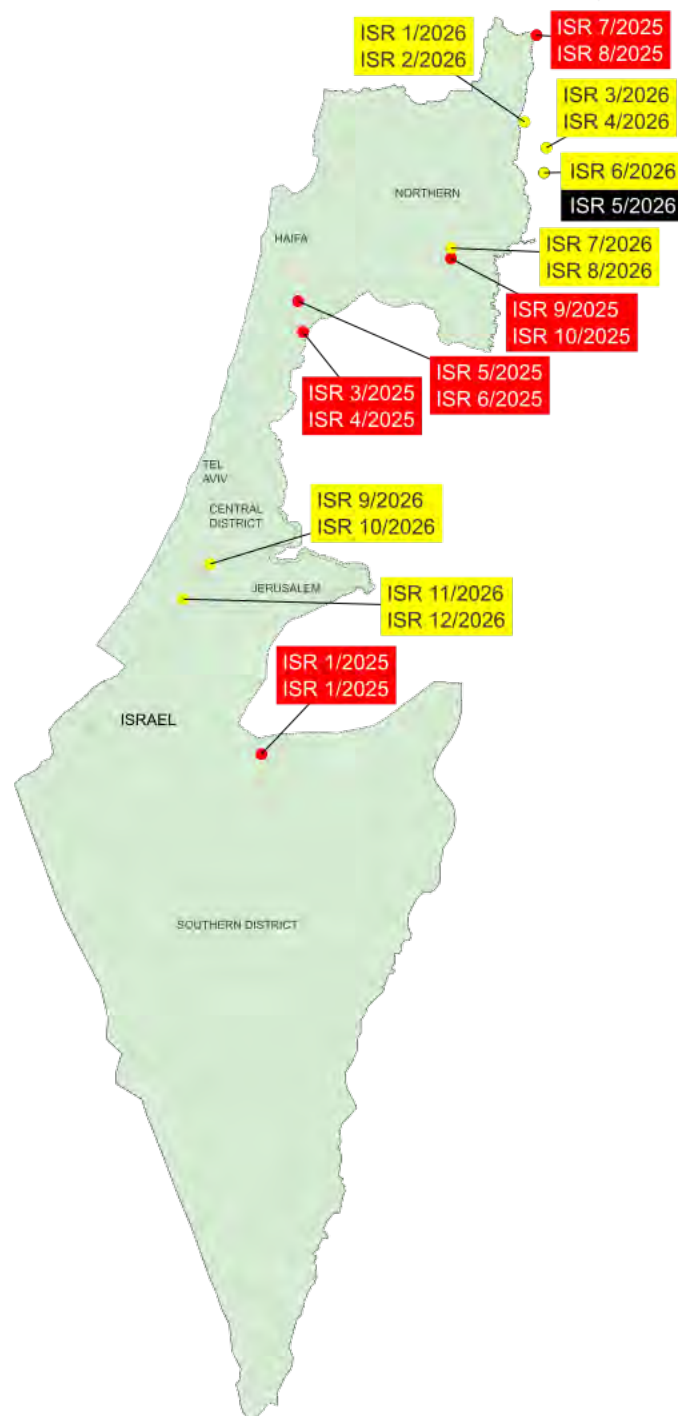
O (O/ ME-SA/SA-2018)

1

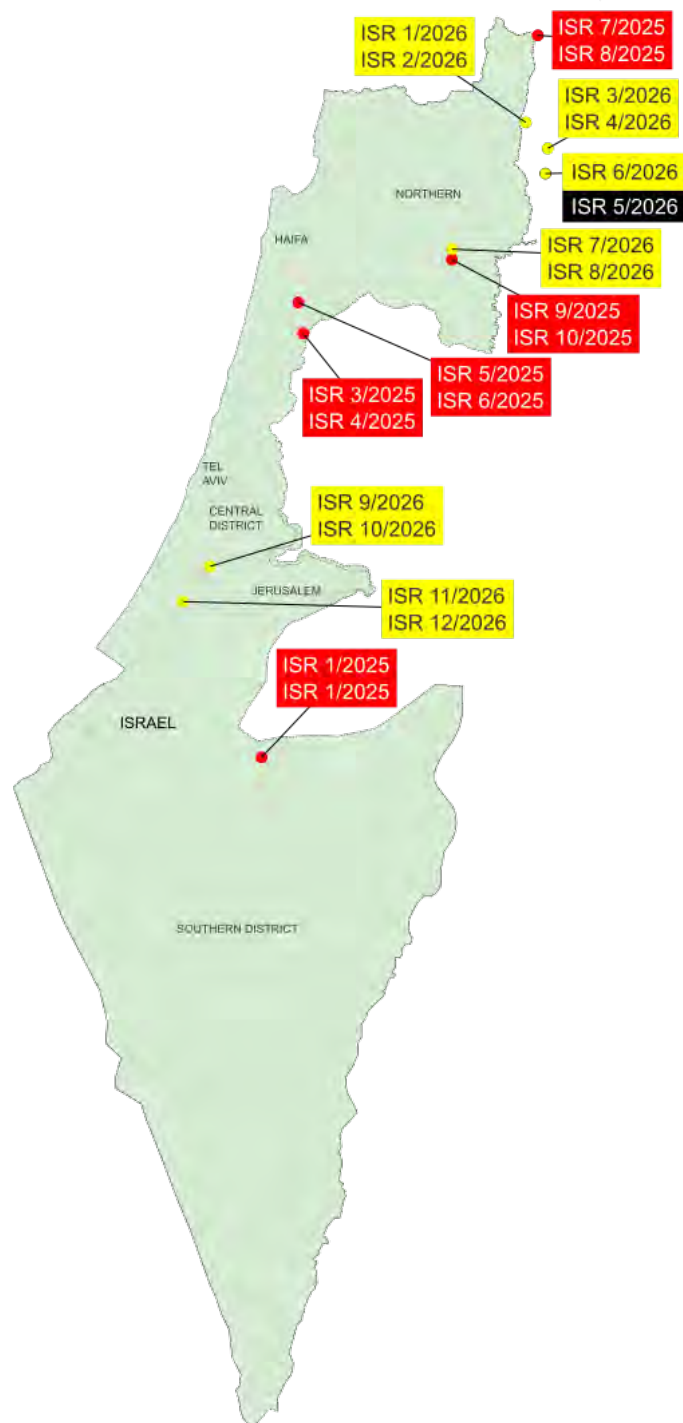


4.1. Pool 3 (West Eurasia and Near East)

The Golan Heights	
Batch:	WRLMEG/2026/000011
Samples/sequences provided by:	Kimron Veterinary Institute, Israel
Date Received:	21 June 2026
Number Of Samples:	6
In progress	6



The State of Israel	
Batch:	WRLMEG/2026/000011
Samples/sequences provided by:	Kimron Veterinary Institute, Israel
Date Received:	21 June 2026
Number Of Samples:	16
In progress	16



The Syrian Arab Republic

Batch:

WRLMEG/2026/000017

Samples/sequences provided by:

Faculty of Veterinary Medicine, Hama University,
Syrian Arab Republic

Date Received:

9 April 2026

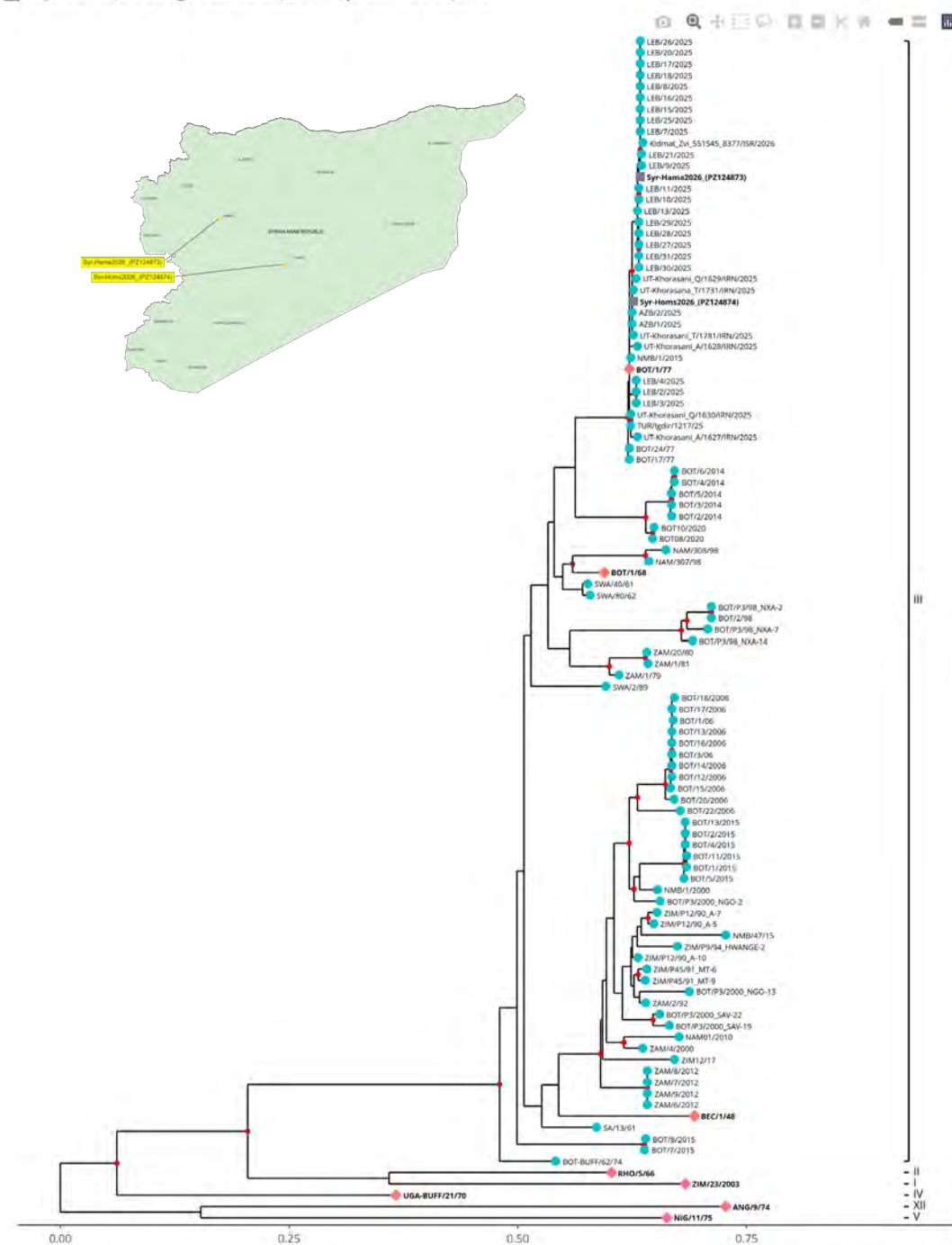
Number Of Samples:

2

SAT 1 (SAT 1/III (WZ))

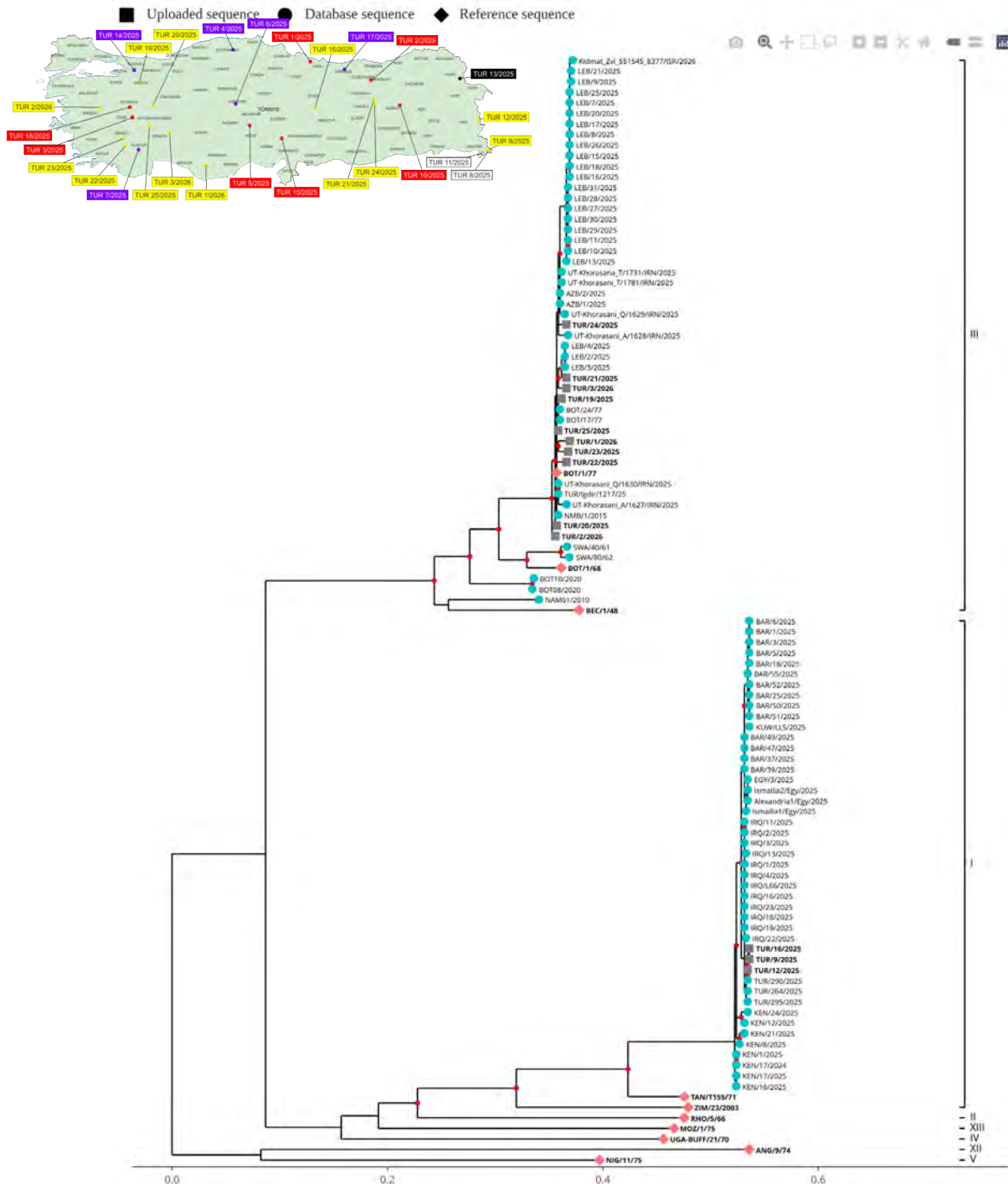
2

■ Uploaded sequence ● Database sequence ◆ Reference sequence



The Republic of Türkiye

Batch:	WRLFMD/2026/000006
Samples/sequences provided by:	Şap Enstitüsü, Türkiye
Date Received:	20 February 2026
Number Of Samples:	13
SAT 1 (SAT 1/I (NWZ))	3
SAT 1 (SAT 1/III (WZ))	10



The Republic of Türkiye

Batch:

WRLFMD/2026/000006

Samples/sequences provided by:

Şap Enstitüsü, Türkiye

Date Received:

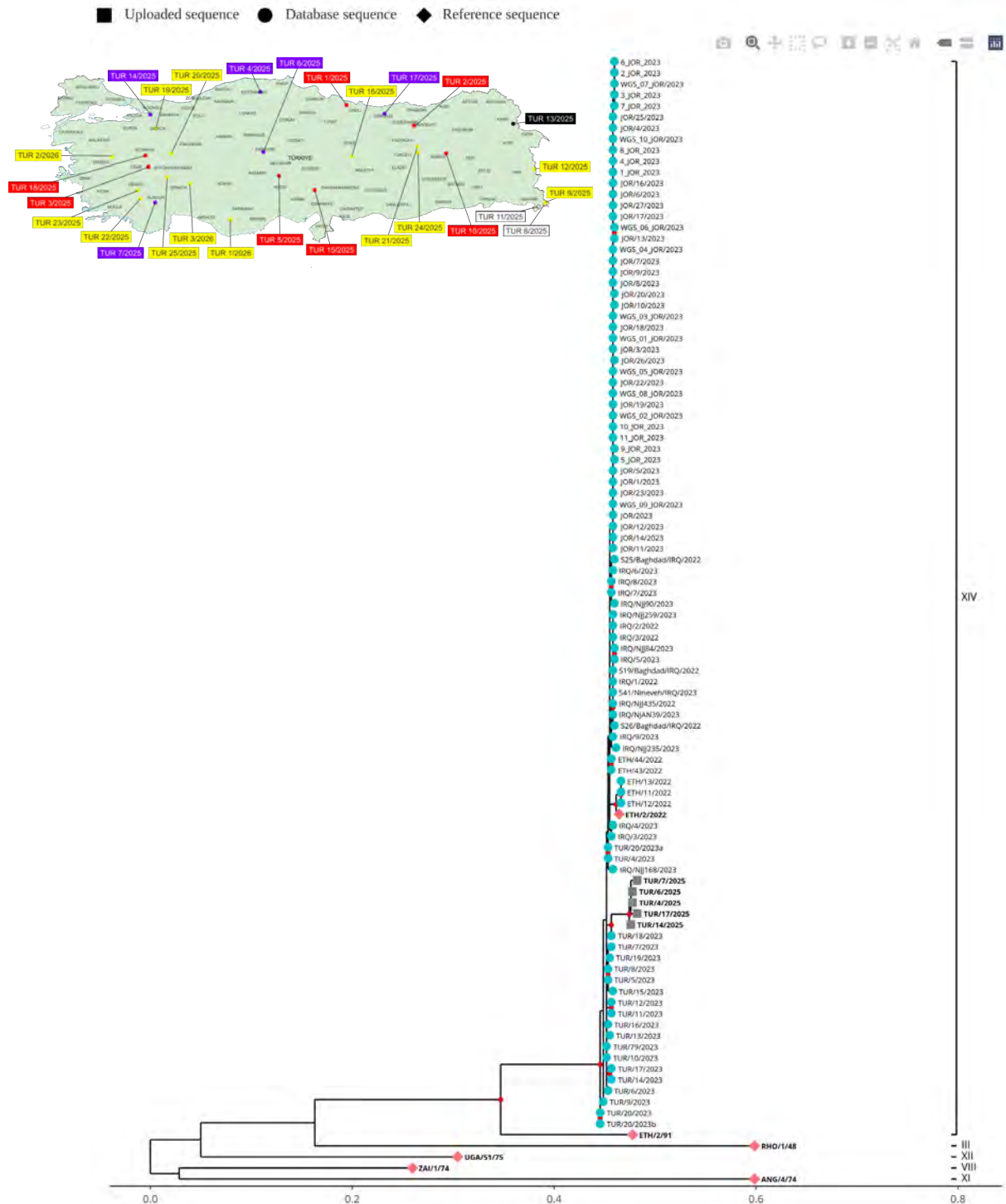
20 February 2026

Number Of Samples:

5

SAT 2 (SAT 2/XIV)

5



4.2. Pool 4 (North and East Africa)

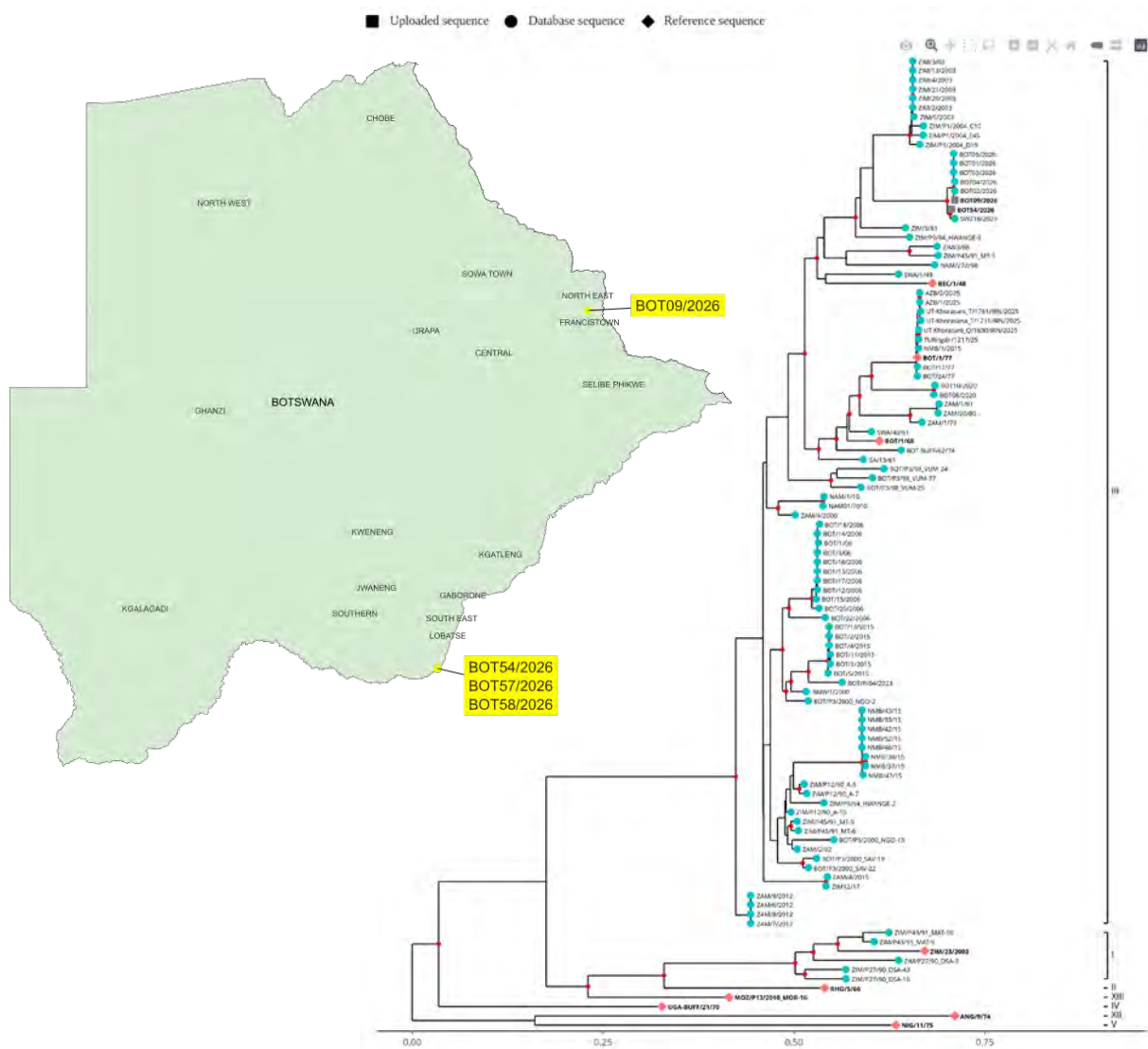
No samples/sequences received.

4.3. Pool 5 (West/Central Africa)

No samples/sequences received.

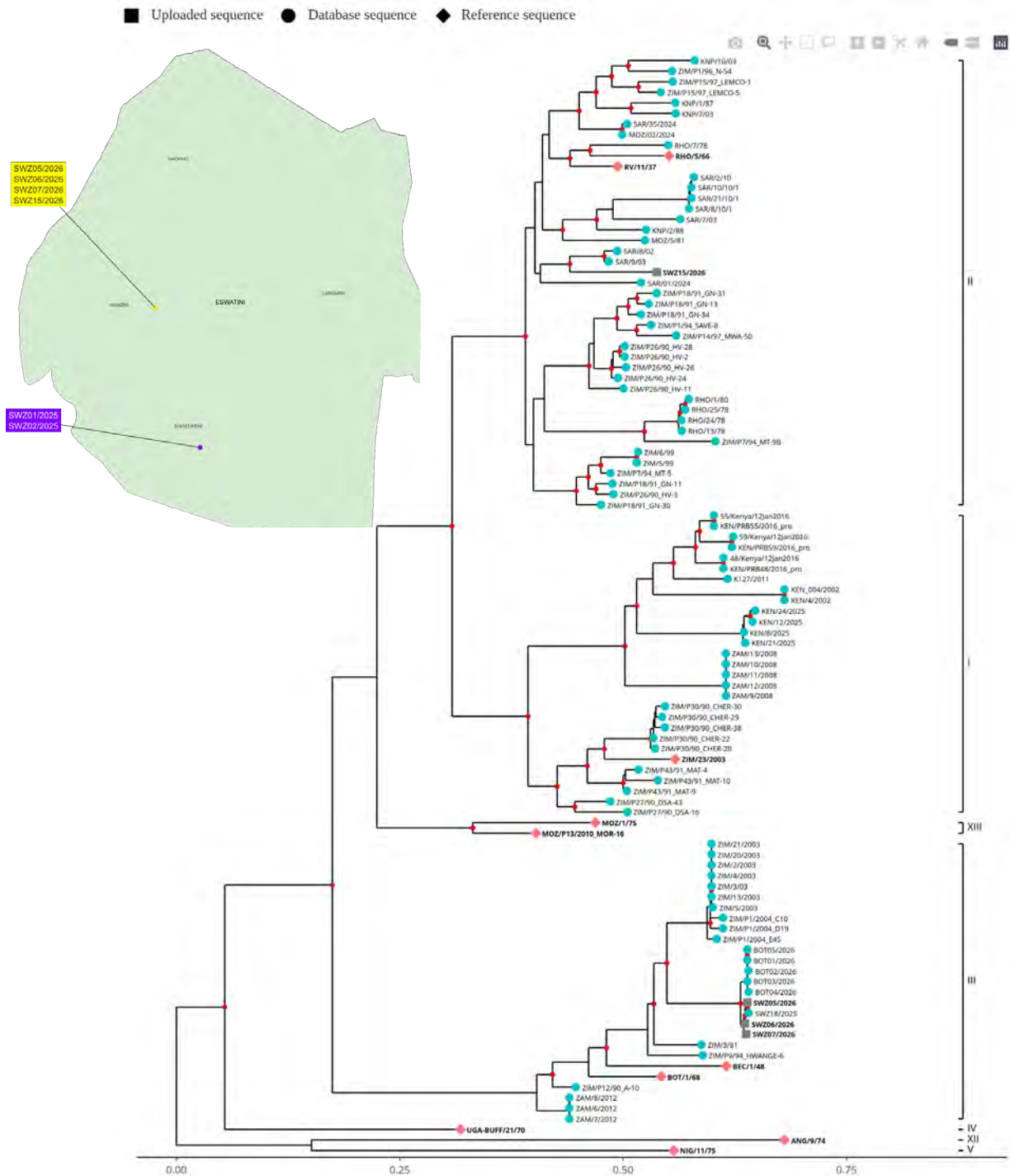
4.4. Pool 6 (Southern Africa)

The Republic of Botswana	
Batch:	WRLMEG/2026/000012
Samples/sequences provided by:	Botswana Vaccine Institute, Botswana
Date Received:	3 April 2026
Number Of Samples:	2
SAT 1 (SAT 1/III (WZ))	2



The Kingdom of Eswatini

Batch:	WRLMEG/2026/000014
Samples/sequences provided by:	Botswana Vaccine Institute, Botswana
Date Received:	3 April 2026
Number Of Samples:	4
SAT 1 (SAT 1/II (SEZ))	1
SAT 1 (SAT 1/III (WZ))	3



The Kingdom of Eswatini

Batch:

WRLMEG/2026/000016

Samples/sequences provided by:

Botswana Vaccine Institute, Botswana

Date Received:

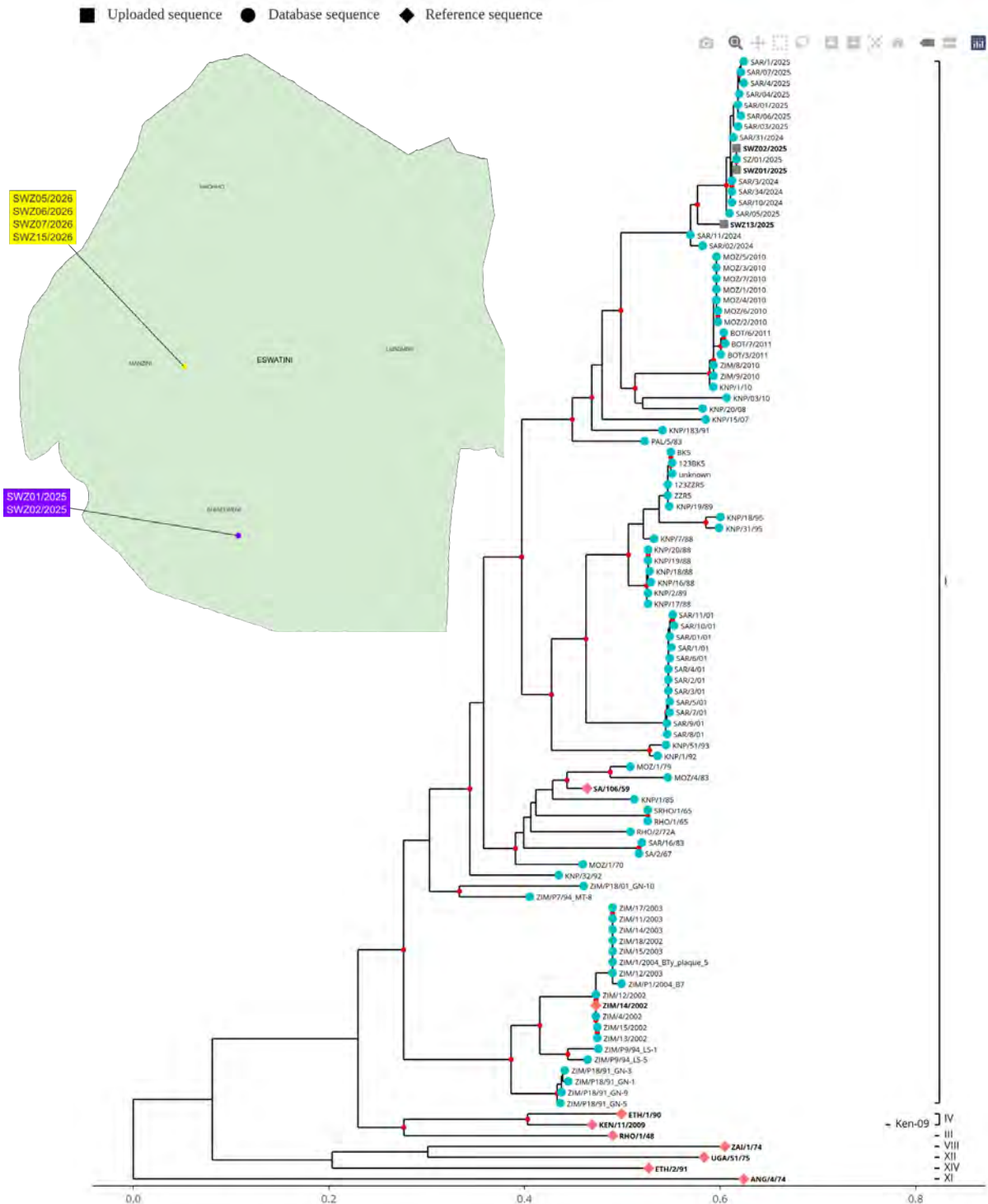
4 April 2026

Number Of Samples:

2

SAT 2 (SAT 2/I)

2



The Kingdom of Lesotho

Batch:

WRLMEG/2026/000019

Samples/sequences provided by:

Botswana Vaccine Institute, Botswana

Date Received:

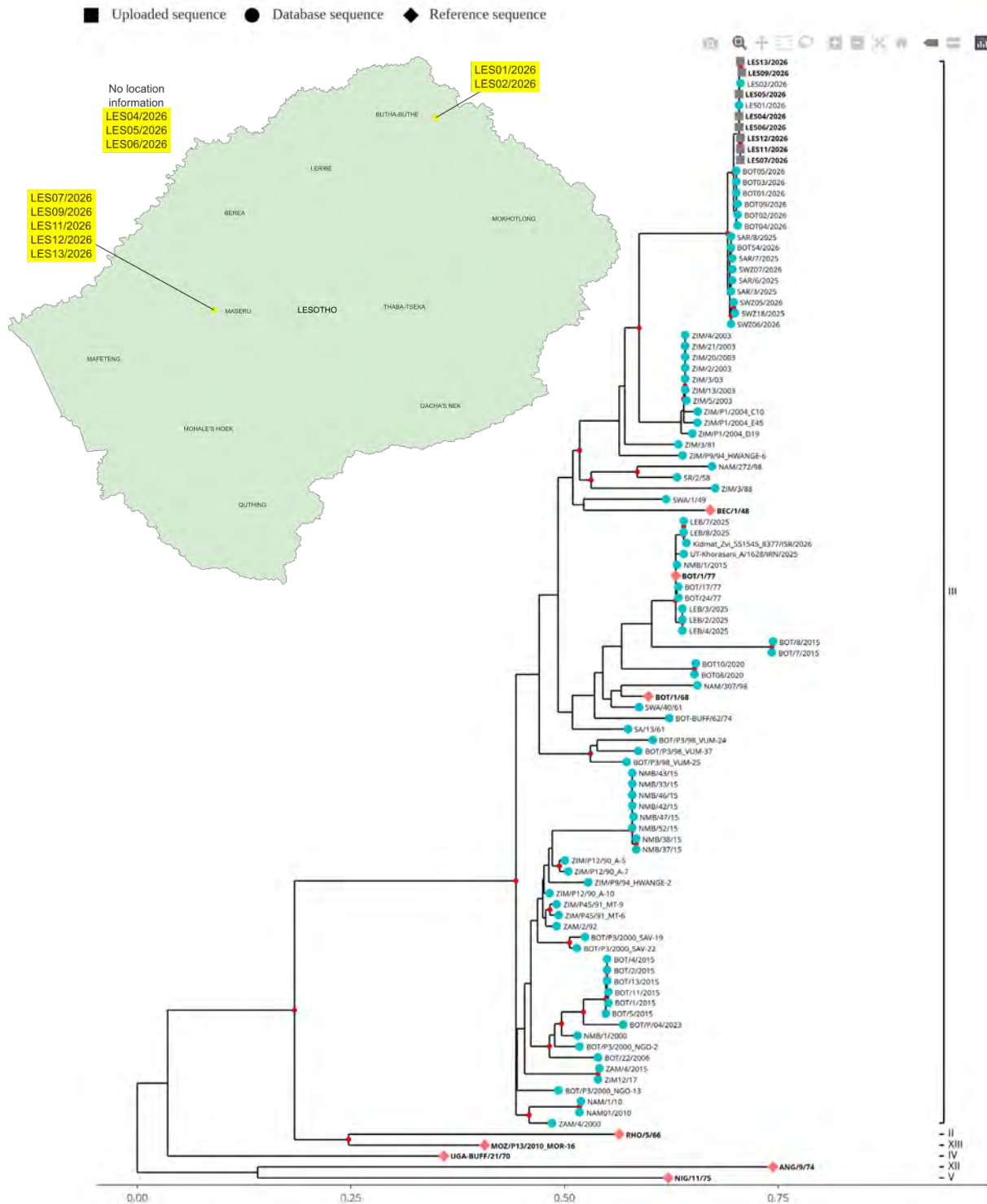
12 April 2026

Number Of Samples:

8

SAT 1 (SAT 1/III (WZ))

8

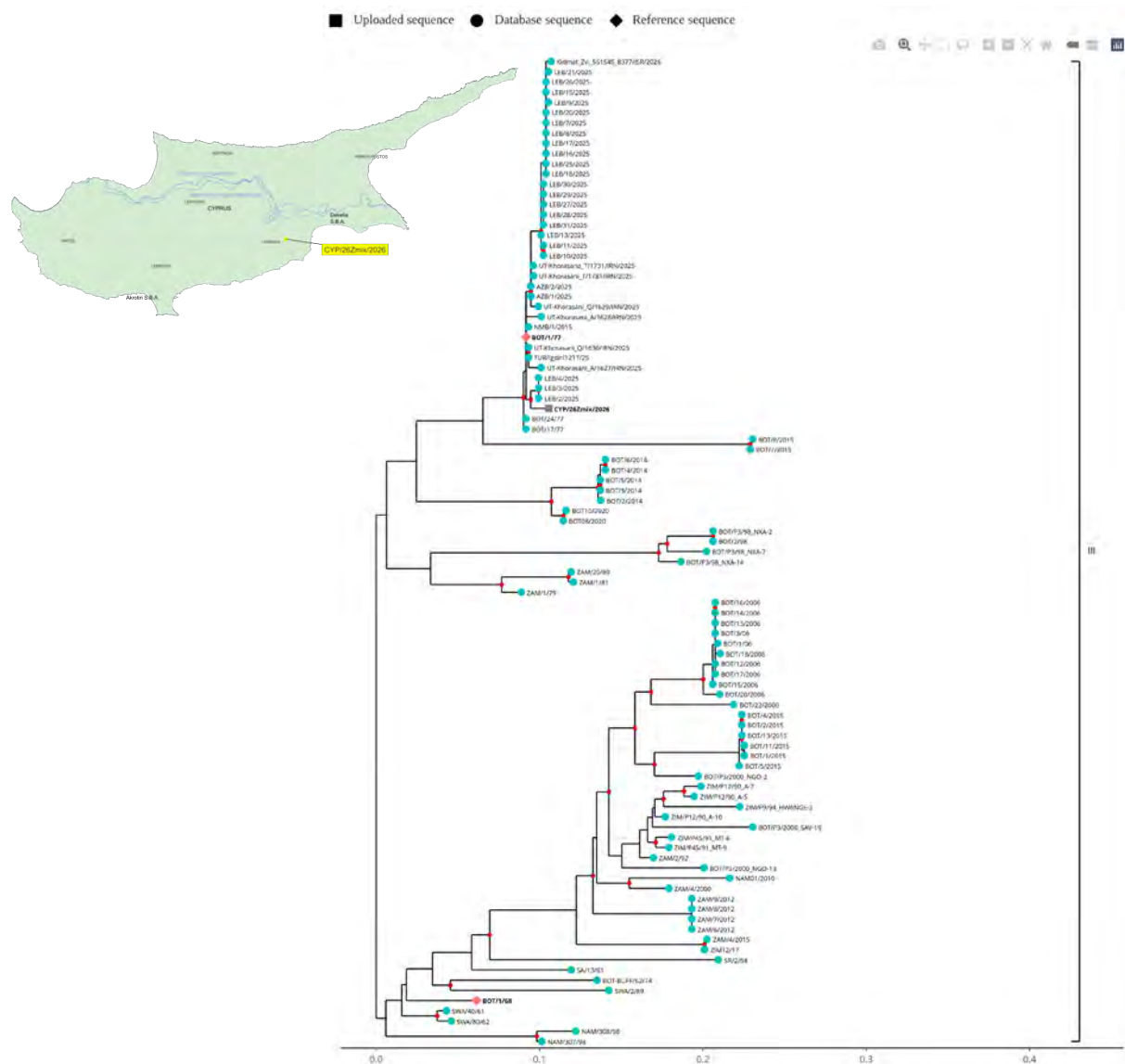


4.5. Pool 7 (South America)

No samples/sequences received.

4.1. Europe

The Republic of Cyprus	
Batch:	WRLMEG/2026/000011
Samples/sequences provided by:	ANSES, France
Number Of Samples:	1
SAT 1 (SAT 1/III (WZ))	1



4.2. Vaccine matching

Antigenic characterisation of FMD field isolates by matching with vaccine strains by 2dmVNT from April - June 2026.

NOTES:

1. Vaccine efficacy is influenced by vaccine potency, antigenic match and vaccination regime. Therefore, it is possible that a less than perfect antigenic match of a particular antigen may be compensated by using a high potency vaccine and by administering more than one vaccine dose at suitable intervals. Thus, a vaccine with a weak antigenic match to a field isolate, as determined by serology, may nevertheless afford some protection if it is of sufficiently high potency and is administered under a regime to maximise host antibody responses (Brehm, 2008¹).
2. Vaccine matching data generated in this report only considers antibody responses in cattle after a single vaccination (typically 21 days after vaccination). The long-term performance of FMD vaccines after a second or multiple doses of vaccine should be monitored using post-vaccination serological testing.

Table 4: Summary of samples tested by vaccine matching.

Serotype	O	A	C	Asia 1	SAT 1	SAT 2	SAT 3
Algeria	2	-	-	-	-	-	-
Bangladesh	3	-	-	-	-	-	-
Mongolia	-	-	-	-	2	-	-
Türkiye	3	-	-	-	3	2	-
Total	8	0	0	0	5	2	0

Abbreviations used in tables

For each field isolate the r_1 value is shown followed by the heterologous neutralisation titre (r_1 -value / titre). The r_1 values shown below, represent the one-way serological match between vaccine strain and field isolate, calculated from the comparative reactivity of antisera raised against the vaccine in question. Heterologous neutralisation titres for vaccine sera with the field isolates are included as an indicator of cross-protection.

¹ Brehm, *et al.* (2008). High potency vaccines induce protection against heterologous challenge with foot-and-mouth disease virus. *Vaccine*, **26**(13):1681-7. doi: [10.1016/j.vaccine.2008.01.038](https://doi.org/10.1016/j.vaccine.2008.01.038).

M	Vaccine Match $r_1 = \geq 0.3$ - suggests that there is a close antigenic relationship between field isolate and vaccine strain. A potent vaccine containing the vaccine strain is likely to confer protection.
N	No Vaccine Match $r_1 < 0.3$ - suggest that the field isolate is antigenically different to the vaccine strain. Where there is no alternative, the use of this vaccine should carefully consider vaccine potency, the possibility to use additional booster doses and monitoring of vaccinated animals for heterologous responses.
NT	Not tested against this vaccine

NOTE: A “0” in the neutralisation columns indicates that for that particular field virus no neutralisation was observed at a virus dose of a 100 TCID₅₀.

NOTE: This report includes the source of the vaccine virus and bovine vaccinal serum. Vaccines from different manufactures may perform differently and caution should be taken when comparing the data.

Table 5: Vaccine matching studies for O FMDV

Serotype O			O 3039 Boehringer Ingelheim		O ₁ Campos Biogénesis Bagó		O Manisa Boehringer Ingelheim		PanAsia 2 Boehringer Ingelheim		O/TUR/5/09 MSD	
Isolate	Topotype	Lineage	r ₁	titre	r ₁	titre	r ₁	titre	r ₁	titre	r ₁	titre
BAN 8/2025	ME-SA	Ind-2001	0.65	2.13	0.59	2.62	0.75	2.33	0.33	2.04	0.56	2.31
BAN 3/2025	ME-SA	SA-2018	0.66	2.14	0.78	2.74	0.86	2.39	0.76	2.40	1.00	2.61
BAN 6/2025	ME-SA	SA-2018	0.55	2.06	0.87	2.79	0.96	2.44	0.64	2.32	1.00	2.57
TUR 1/2025	ME-SA	SA-2018	1.00	2.06	0.81	2.66	1.00	2.38	0.76	2.34	0.97	2.28
TUR 5/2025	ME-SA	SA-2018	1.00	2.09	0.42	2.37	1.00	2.40	0.70	2.30	0.93	2.26
TUR 15/2025	ME-SA	SA-2018	1.00	2.18	0.71	2.60	1.00	2.48	0.65	2.27	0.95	2.27
ALG 6/2025	EA-3	-	1.00	1.97	0.45	2.27	1.00	2.24	0.43	2.09	0.72	2.09
ALG 13/2025	EA-3	-	0.91	1.91	0.48	2.30	0.92	2.18	0.46	2.11	0.69	2.07

Table 6: Vaccine matching studies for SAT 1 FMDV

Isolate	Serotype SAT 1		SAT1 IRQ 2025 <i>Dollvet</i>		SAT1 Rho78 <i>Boehringer Ingelheim</i>		SAT1/BOT 1/1977 <i>Dollvet</i>	
	Topotype	Lineage	r_1	titre	r_1	titre	r_1	titre
TUR 9/2025	I (NWZ)	-			0.30	2.15		
MOG 5/2026	III (WZ)	-	0.63	2.50	0.57	2.39	0.75	2.48
MOG 7/2026	III (WZ)	-	0.74	2.58	0.97	2.62	1.00	2.64
TUR 22/2025	III (WZ)	-			0.40	2.28		
TUR 24/2025	III (WZ)	-			0.21	2.01		

Table 7: Vaccine matching studies for SAT 2 FMDV

Isolate	Serotype SAT 2		SAT2 Zim 83 <i>Boehringer Ingelheim</i>		SAT2 Eritrea 98 <i>Boehringer Ingelheim</i>		SAT2 Oman 2015 <i>Biogénesis Bagó</i>	
	Topotype	Lineage	r_1	titre	r_1	titre	r_1	titre
TUR 7/2025	XIV	-	0.21	2.23	0.37	1.75	0.52	2.50
TUR 14/2025	XIV	-	0.14	2.05	0.38	1.76	0.35	2.33

Annex 1: Sample data

Summary of submissions

Table 8: Summary of samples collected and received to WRLFMD April - June 2026

Country	Nº of samples	Virus isolation in cell culture/ELISA								No Virus Detected	RT-PCR for FMD	
		FMD virus serotypes							Positive		Negative	
		O	A	C	SAT 1	SAT 2	SAT 3	ASIA1				
Bhutan	24	9*	-	-	-	-	-	-	6	18	6	
Indonesia	43	20	-	-	-	-	-	-	10	33	10	
Israel	22	10	-	-	11	-	-	-	-	22	-	
Mongolia	8	4	-	-	4	-	-	-	-	8	-	
Türkiye	28	7	-	-	13	5	-	-	2	26	2	
TOTAL	125	49	0	0	28	5	0	0	18	107	18	

* One sample was originally as FMDV GD. The serotype was determined by sequencing

Clinical samples

Table 9: Clinical sample diagnostics made by the WRLFMD April - June 2026

Country	Date		WRL for FMD Sample Identification	Animal	Date of Collection	VI/ELISA	Results	
	Received	Reported					RT-PCR	Final report
Bhutan	30 Jan 2026		BHU 30/2017	Bovine	24 Jul 2017	NVD	FMDV/GD	FMDV/GD
			BHU 31/2017	Bovine	29 Sep 2017	NVD	FMDV/GD	FMDV/GD
			BHU 32/2017	Bovine	06 Dec 2017	O	FMDV/GD	O
			BHU 29/2018	Bovine	25 Jul 2018	NVD	NGD	NVD
			BHU 30/2018	Bovine	24 Aug 2018	NVD	FMDV/GD	FMDV/GD
			BHU 31/2018	Bovine	08 Sep 2018	NVD	FMDV/GD	FMDV/GD
			BHU 32/2018	Bovine	24 Sep 2018	NVD	NGD	NVD
			BHU 33/2018	Bovine	24 Sep 2018	NVD	FMDV/GD	FMDV/GD
			BHU 34/2018	Bovine	24 Sep 2018	NVD	NGD	NVD
			BHU 35/2018	Bovine	9 Nov 2018	NVD	NGD	NVD
			BHU 36/2018	Bovine	9 Nov 2018	NVD	NGD	NVD
			BHU 11/2019	Bovine	21 Jan 2019	NVD	FMDV/GD	FMDV/GD
			BHU 12/2019	Bovine	21 Jan 2019	O	FMDV/GD	O
			BHU 1/2024	Bovine	01 Oct 2024	NVD	FMDV/GD	FMDV/GD
			BHU 2/2024	Bovine	01 Oct 2024	NVD	FMDV/GD	FMDV/GD
			BHU 3/2024	Bovine	01 Oct 2024	O	FMDV/GD	O
			BHU 4/2024	Bovine	01 Oct 2024	O	FMDV/GD	O
			BHU 5/2024	Bovine	01 Oct 2024	O	FMDV/GD	O

		BHU 6/2024	Bovine	01 Oct 2024	O	FMDV/GD	O
		BHU 7/2024	Bovine	01 Oct 2024	O	FMDV/GD	O
		BHU 1/2025	Bovine	01 Dec 2025	NVD	NGD	NVD
Indonesia	05 Feb 2026	ISA 10/2022	Cattle	19 May 22	NVD	NGD	NVD
		ISA 23/2024	Cattle	02 Sep 2024	NVD	NGD	NVD
		ISA 24/2024	Cattle	23 Dec 2024	NVD	FMDV/GD	FMDV/GD
		ISA 25/2024	Cattle	23 Dec 2024	NVD	FMDV/GD	FMDV/GD
		ISA 26/2024	Cattle	23 Dec 2024	NVD	FMDV/GD	FMDV/GD
		ISA 27/2024	Cattle	23 Dec 2024	O	FMDV/GD	O
		ISA 28/2024	Cattle	23 Dec 2024	NVD	FMDV/GD	FMDV/GD
		ISA 29/2024	Cattle	23 Dec 2024	NVD	FMDV/GD	FMDV/GD
		ISA 30/2024	Cattle	24 Dec 2024	NVD	FMDV/GD	FMDV/GD
		ISA 31/2024	Cattle	30 Dec 2024	O	FMDV/GD	O
		ISA 32/2024	Cattle	31 Dec 2024	O	FMDV/GD	O
		ISA 33/2024	Cattle	31 Dec 2024	NVD	FMDV/GD	FMDV/GD
		ISA 1/2025	Cattle	02 Jan 2025	O	FMDV/GD	O
		ISA 2/2025	Cattle	02 Jan 2025	O	FMDV/GD	O
		ISA 3/2025	Cattle	02 Jan 2025	O	FMDV/GD	O
		ISA 4/2025	Cattle	02 Jan 2025	O	FMDV/GD	O
		ISA 5/2025	Cattle	03 Jan 2025	O	FMDV/GD	O
		ISA 6/2025	Cattle	03 Jan 2025	O	FMDV/GD	O
		ISA 7/2025	Cattle	06 Jan 2025	O	FMDV/GD	O
		ISA 8/2025	Cattle	09 Jan 2025	O	FMDV/GD	O
		ISA 9/2025	Cattle	09 Jan 2025	NVD	FMDV/GD	FMDV/GD
		ISA 10/2025	Cattle	10 Jan 2025	O	FMDV/GD	O
		ISA 11/2025	Cattle	20 Jan 2025	O	FMDV/GD	O
		ISA 12/2025	Cattle	20 Jan 2025	NVD	NGD	NVD
		ISA 13/2025	Cattle	24 Jan 2025	O	FMDV/GD	O
		ISA 14/2025	Cattle	05 Feb 2025	NVD	FMDV/GD	FMDV/GD
		ISA 15/2025	Goat	05 Feb 2025	NVD	NGD	NVD
		ISA 16/2025	Cattle	03 Apr 2025	NVD	FMDV/GD	FMDV/GD
		ISA 17/2025	Cattle	15 Apr 2025	O	FMDV/GD	O
		ISA 18/2025	Cattle	15 Apr 2025	O	FMDV/GD	O
		ISA 19/2025	Cattle	07 May 2025	NVD	NGD	NVD
		ISA 20/2025	Cattle	07 May 2025	NVD	FMDV/GD	FMDV/GD
		ISA 21/2025	Cattle	07 May 2025	NVD	NGD	NVD
		ISA 22/2025	Cattle	22 May 2025	NVD	NGD	NVD
		ISA 23/2025	Cattle	22 May 2025	NVD	NGD	NVD
		ISA 24/2025	Cattle	03 Jun 2025	NVD	FMDV/GD	FMDV/GD
		ISA 25/2025	Cattle	16 Jun 2025	O	FMDV/GD	O
		ISA 26/2025	Cattle	14 Jul 2025	O	FMDV/GD	O
		ISA 27/2025	Cattle	14 Jul 2025	O	FMDV/GD	O
		ISA 28/2025	Pig	24 Jul 2025	NVD	NGD	NVD
		ISA 29/2025	Pig	24 Jul 2025	NVD	FMDV/GD	FMDV/GD
		ISA 30/2025	Cattle	24 Jul 2025	NVD	NGD	NVD
		ISA 31/2025	Cattle	24 Sep 2025	O	FMDV/GD	O
Türkiye	20 Feb	TUR 1/2025	Cattle	15 Jan 2025	O	FMDV/GD	O

2026		TUR 2/2025	Sheep	05 Feb 2025	O	FMDV/GD	O
		TUR 3/2025	Cattle	19 Feb 2025	O	FMDV/GD	O
		TUR 4/2025	Cattle	24 Mar 2025	SAT2	FMDV/GD	SAT 2
		TUR 5/2025	Sheep	27 Mar 2025	O	FMDV/GD	O
		TUR 6/2025	Cattle	13 May 2025	SAT2	FMDV/GD	SAT 2
		TUR 7/2025	Cattle	16 May 2025	SAT2	FMDV/GD	SAT 2
		TUR 8/2025	Sheep	20 May 2025	NVD	NGD	NVD
		TUR 9/2025	Cattle	21 May 2025	SAT1	FMDV/GD	SAT 1
		TUR 10/2025	Sheep	26 May 2025	O	FMDV/GD	O
		TUR 11/2025	Sheep	28 May 2025	NVD	NGD	NVD
		TUR 12/2025	Cattle	30 May 2025	SAT1	FMDV/GD	SAT 1
		TUR 13/2025	Cattle	02 Jun 2025	NVD	FMDV/GD	FMDV/GD
		TUR 14/2025	Cattle	11 Jun 2025	SAT2	FMDV/GD	SAT 2
		TUR 15/2025	Cattle	12 Jun 2025	O	FMDV/GD	O
		TUR 16/2025	Cattle	19 Jun 2025	SAT1	FMDV/GD	SAT 1
		TUR 17/2025	Cattle	20 Jun 2025	SAT2	FMDV/GD	SAT 2
		TUR 18/2025	Cattle	25 Jun 2025	O	FMDV/GD	O
		TUR 19/2025	Cattle	11 Nov 2025	SAT1	FMDV/GD	SAT 1
		TUR 20/2025	Cattle	12 Nov 2025	SAT1	FMDV/GD	SAT 1
		TUR 21/2025	Cattle	12 Nov 2025	SAT1	FMDV/GD	SAT 1
		TUR 22/2025	Cattle	17 Nov 2025	SAT1	FMDV/GD	SAT 1
		TUR 23/2025	Cattle	19 Nov 2025	SAT1	FMDV/GD	SAT 1
		TUR 24/2025	Cattle	26 Nov 2025	SAT1	FMDV/GD	SAT 1
		TUR 25/2025	Cattle	03 Dec 2025	SAT1	FMDV/GD	SAT 1
		TUR 1/2026	Cattle	02 Jan 2026	SAT1	FMDV/GD	SAT 1
		TUR 2/2026	Cattle	07 Jan 2026	SAT1	FMDV/GD	SAT 1
		TUR 3/2026	Cattle	14 Jan 2026	SAT1	FMDV/GD	SAT 1
Mongolia	05 May 2026	MOG 1/2026	Cattle	24 Mar 2026	O	FMDV/GD	O
		MOG 2/2026	Cattle	24 Mar 2026	O	FMDV/GD	O
		MOG 3/2026	Sheep	24 Mar 2026	O	FMDV/GD	O
		MOG 4/2026	Sheep	24 Mar 2026	O	FMDV/GD	O
Israel	21 May 2026	ISR 1/2025	Sheep	14 Feb 2025	O	FMDV/GD	O
		ISR 2/2025	Sheep	14 Feb 2025	O	FMDV/GD	O
		ISR 3/2025	Cattle	10 Apr 2025	O	FMDV/GD	O
		ISR 4/2025	Cattle	10 Apr 2025	O	FMDV/GD	O
		ISR 5/2025	Cattle	29 Apr 2025	O	FMDV/GD	O
		ISR 6/2025	Cattle	29 Apr 2025	O	FMDV/GD	O
		ISR 7/2025	Cattle	26 May 2025	O	FMDV/GD	O
		ISR 8/2025	Cattle	26 May 2025	O	FMDV/GD	O
		ISR 9/2025	Cattle	15 Aug 2025	O	FMDV/GD	O
		ISR 10/2025	Cattle	15 Aug 2025	O	FMDV/GD	O
		ISR 1/2026	Cattle	21 Jan 2026	SAT1	FMDV/GD	SAT 1
		ISR 2/2026	Cattle	21 Jan 2026	SAT1	FMDV/GD	SAT 1
		ISR 3/2026	Cattle	28 Jan 2026	SAT1	FMDV/GD	SAT 1
		ISR 4/2026	Cattle	28 Jan 2026	SAT1	FMDV/GD	SAT 1
		ISR 5/2026	Cattle	08 Feb 2026	NVD	FMDV/GD	FMDV/GD
		ISR 6/2026	Cattle	08 Feb 2026	SAT1	FMDV/GD	SAT 1

		ISR 7/2026	Cattle	08 Mar 2026	SAT1	FMDV GD	SAT 1
		ISR 8/2026	Cattle	08 Mar 2026	SAT1	FMDV GD	SAT 1
		ISR 9/2026	Cattle	07 Apr 2026	SAT1	FMDV GD	SAT 1
		ISR 10/2026	Cattle	07 Apr 2026	SAT1	FMDV GD	SAT 1
		ISR 11/2026	Cattle	07 Apr 2026	SAT1	FMDV GD	SAT 1
		ISR 12/2026	Cattle	07 Apr 2026	SAT1	FMDV GD	SAT 1
Mongolia	01 Jun 2026	MOG 5/2026	Yak	23 May 2026	SAT1	FMDV GD	SAT 1
		MOG 6/2026	Yak	23 May 2026	SAT1	FMDV GD	SAT 1
		MOG 7/2026	Yak	23 May 2026	SAT1	FMDV GD	SAT 1
		MOG 8/2026	Yak	23 May 2026	SAT1	FMDV GD	SAT 1
Bhutan	12 Jun 2026	BHU 1/2026	Bovine	18 May 2026	NVD	FMDV GD	FMDV GD
		BHU 2/2026	Bovine	02 Jun 2026	O	FMDV GD	O
		BHU 3/2026	Bovine	08 Jun 2026	NVD	FMDV GD	O *
Total		125					

* This samples was originally reported as FMDV GD. Serotype O was determined by sequencing

Annex 2: FMD publications

Recent FMD Publications April - June 2026 cited by Web of Science.

1. (2026). Foot-and-mouth confirmed in Cyprus. *Veterinary Record*, **198**(6): 1.
2. (2026). FMD confirmed in Greece. *Veterinary Record*, **198**(7): 1.
3. (2026). Veterinarians' perception of livestock infectious disease: results from a five country cross-European survey (2024). *BMC Veterinary Research*, **22**(1): 14. doi: [10.1186/s12917-026-05410-1](https://doi.org/10.1186/s12917-026-05410-1).
4. (2026). Foot-and-mouth disease detected in China. *Veterinary Record*, **198**(10): 1.
5. (2026). FMD spreading in Cyprus and Greece. *Veterinary Record*, **198**(12): 1.
6. Ahmad, Z., M. Asim, R. Rafique, S. Hussain, N. Ullah, A. Sarwar, A. Khan, T. Aziz, N. Al-Hoshani, and R. Mohamed (2026). Metabolic modulation through amino acid supplementation enhances foot-and-mouth disease replication in BHK-21 cell culture. *Arquivo Brasileiro De Medicina Veterinaria E Zootecnia*, **78**(3): 8. doi: [10.1590/1678-4162-13733](https://doi.org/10.1590/1678-4162-13733).
7. Alsakini, K. and A. Nalbantsoy (2025). Immunogenic potential of *Foot-and-mouth virus* antigen O-146S adjuvanted with water-in-oil and water-in-oil-in-water emulsion in mice. *Turkish Journal of Immunology*, **13**(2): 99–108. doi: [10.36519/tji.2025.671](https://doi.org/10.36519/tji.2025.671).
8. Anwar, R., R. Astuti, N. Mayasari, T. Priyatno, S. Santoso, H. Nuradji, and A. Wahyudi (2026). Integrated molecular, immunoinformatic, and structural analysis reveals emerging antigenic divergence of Foot-and-mouth disease virus serotype O during the 2022-2023 outbreaks in Indonesia. *Veterinary World*, **19**(3): 888–904. doi: [10.14202/vetworld.2026.888-904](https://doi.org/10.14202/vetworld.2026.888-904).
9. Bonnet-Di Placido, M., H. Duyvesteyn, A. Steyn, A. Hay, C. Porta, K. Valdez, E. Lokhman, S. Crossley, K. Hanson, W. Mwangi, D. Munir, E. Perez-Martin, N. Knowles, A. Burman, A. Yassin, A. Asfor, C. Faralla, K. Lam, R. McComb, C. Leifeld, K. Pietersz, D. King, E. van den Born, S. Duncan, B. Charleston, E. Fry, J. Ren, D. Stuart, and J. Hammond (2026). Cattle antibodies identify a cross-serotype broadly neutralising Foot-and-mouth disease virus epitope. *NPJ Vaccines*, **11**(1): 18. doi: [10.1038/s41541-026-01427-7](https://doi.org/10.1038/s41541-026-01427-7).
10. Byamukama, B., A. Amin, F.N. Mwiine, S.D. Kerfua, and A.B. Ekiri (2026). Epidemiology of Foot-and-mouth disease in goats in Uganda: a risk-based approach. *Transboundary and Emerging Diseases*, **2026**(1): 16. doi: [10.1155/tbed/2808139](https://doi.org/10.1155/tbed/2808139).
11. Cai, M.T., H. Yuan, T. Wang, Y.F. Fu, H.F. Bao, P.H. Li, H. Weng, J.F. Zhao, K. Li, P. Sun, X.Q. Ma, Z.X. Zhao, J. Zhang, Y.M. Cao, D. Li, Z.J. Lu, and X.W. Bai (2026). The La Region of Foot-and-mouth disease virus: essential for L protein cellular distribution but not functional activity. *International Journal of Molecular Sciences*, **27**(6): 17. doi: [10.3390/ijms27062893](https://doi.org/10.3390/ijms27062893).
12. Das, S., B. Barik, J. Biswal, R. Ranjan, J. Mohapatra, and R. Singh (2026). FmdNspPred: A computational model for prediction of Foot-and-mouth disease virus exposure of the susceptible animals using 2B NSP-ELISA data. *VirusDisease*: 15. doi: [10.1007/s13337-026-00970-0](https://doi.org/10.1007/s13337-026-00970-0).
13. Das, S., B. Barik, S. Subramaniam, J. Mohapatra, and R. Singh (2026). Estimation of seroconversion and vaccination impact against FMD in India during 2006-2022 using survey sampling and Bayesian approaches. *Scientific Reports*, **16**(1): 17. doi: [10.1038/s41598-026-46432-x](https://doi.org/10.1038/s41598-026-46432-x).
14. Dinana, Z., J. Rahmahani, Suwarno, I.S. Hamid, M.A. Al-Arif, M. Yunus, W. Tyasningsih, I.S. Ihsan, A.T. Maharani, F.K. Maulana, N.S. Said, D.U. Fahrodi, and F.A. Rantam (2026). Molecular

- evolution and epidemiological dynamics of Foot-and-mouth disease virus O/ME-SA/Ind-2001e circulating in East Java, Indonesia, in 2022-2025. *Veterinary Medicine International*, **2026**(1): 8. doi: [10.1155/vmi/6526830](https://doi.org/10.1155/vmi/6526830).
15. Elrashedy, A., M. Nayel, A. Salama, A. Zaghawa, and M. Hasan (2026). Immunoinformatics-based design of artificial chimeric proteins as universal vaccine candidates against Foot-and-mouth disease virus serotypes A, O, and SAT 2. *Scientific Reports*, **16**(1): 34. doi: [10.1038/s41598-026-49135-5](https://doi.org/10.1038/s41598-026-49135-5).
 16. Fetene, E., D. Shegu, A. Muluneh, A. Aliy, J. Paeshuyse, F. Woldemariyam, H. Negussie, and S. Leta (2026). Serotype characterization and transmission modelling of Foot-and-mouth disease in dairy farms, Bishoftu, Ethiopia. *Veterinary Medicine and Science*, **12**(4): 8. doi: [10.1002/vms3.71054](https://doi.org/10.1002/vms3.71054).
 17. Fosgate, G.T., D.R. Oerlemans, L. Seoke, P.A. Opperman, D.D. Lazarus, M. Gobiye, and L. Heath (2026). Post-vaccination serological status predicts protection against heterologous SAT1 Foot-and-mouth disease virus challenge in goats. *Preventive Veterinary Medicine*, **253**: 11. doi: [10.1016/j.prevetmed.2026.106893](https://doi.org/10.1016/j.prevetmed.2026.106893).
 18. García-Pintos, C. and A. Menchaca (2026). Effect of vaccination against foot-and-mouth disease on milk yield in dairy cows. *Veterinary and Animal Science*, **33**: 8. doi: [10.1016/j.vas.2026.100683](https://doi.org/10.1016/j.vas.2026.100683).
 19. Geleto, F., G. Dilba, A. Muluneh, T. Benti, and T. Dinbiso (2026). Serological investigation of foot-and-mouth disease in cattle in East Bale Zone, Ethiopia. *BMC Veterinary Research*, **22**(1): 13. doi: [10.1186/s12917-026-05496-7](https://doi.org/10.1186/s12917-026-05496-7).
 20. Gizaw, D., T. Worku, F. Wondmneh, D. Shegu, D. Negessu, A. Fentie, and A. Abebe (2026). Seroprevalence of foot-and-mouth disease and its association with animal-level and agroecological factors in cattle around Massif Bale Mountain, Ethiopia. *BMC Veterinary Research*, **22**(1): 10. doi: [10.1186/s12917-026-05491-y](https://doi.org/10.1186/s12917-026-05491-y).
 21. Hayat, S., M. Sadekuzzaman, S. Arju, M.P. Siddique, M.A. Islam, M.G.A. Chowdhury, M.T. Hossain, and M.A. Islam (2026). Complete genome sequence of a circulating Foot-and-mouth disease virus serotype A isolated from recent outbreaks in Bangladesh. *Microbiology Resource Announcements*, **15**(4): 4. doi: [10.1128/mra.01143-25](https://doi.org/10.1128/mra.01143-25).
 22. Hayward, C., E. Hietanen, S. Dobson, R. Bishop, M. Herod, J. Fontana, D. Rowlands, and N. Stonehouse (2026). Interactions between the 2C protein of Foot-and-mouth disease virus and components of the viral replication machinery are mediated by endoplasmic reticulum-derived membranes. *Journal of General Virology*, **107**(5): 15. doi: [10.1099/jgv.0.002244](https://doi.org/10.1099/jgv.0.002244).
 23. Iborra-Pernichi, M., P. de León, E. Torres, S. Defaus, E. Blanco, D. Andreu, N. Martínez-Martín, and F. Sobrino (2026). Foot-and-mouth disease virus-derived dendrimer peptides induce germinal center-dependent antibody responses and IgG1 plasma cell differentiation in mice. *Scientific Reports*, **16**(1): 11. doi: [10.1038/s41598-026-42982-2](https://doi.org/10.1038/s41598-026-42982-2).
 24. Jean-Pierre, R., K. Rich, S. Bahta, A. Hagerman, D. Enahoro, and A. Railey (2026). A system dynamics approach to quantifying the cost-effectiveness of endemic livestock disease control: An application to foot-and-mouth disease in Rwanda. *Agricultural Systems*, **237**: 12. doi: [10.1016/j.agsy.2026.104798](https://doi.org/10.1016/j.agsy.2026.104798).
 25. Jin, J., S. Park, J. Kim, G. Cho, S. HwangBo, J. Park, and Y. Ko (2026). Enhancing capsid stability of a Foot-and-mouth disease virus vaccine strain through VP1-directed chimeric design while preserving antigenicity. *Vaccines*, **14**(5): 12. doi: [10.3390/vaccines14050371](https://doi.org/10.3390/vaccines14050371).

26. Kabir, A., A.A. Kamboh, M. Abubakar, K. Lionel, and A.M. Matar (2026). Seroprevalence and risk factor assessment of Foot-and-mouth disease virus in the Pakistan-Afghanistan border region. *Pathogens*, **15**(4): 14. doi: [10.3390/pathogens15040407](https://doi.org/10.3390/pathogens15040407).
27. Kafi, Z.Z., M.H.F. Mehrabadi, S. Sarmadi, F. Jamiri, A. Bakhshi, M.H. Chaleshtori, H. Sheikhi, A. Javadi, A. Vafadar, and A. Ghalyanchilangeroudi (2026). Emergence of Foot-and-mouth disease virus SAT 1 topotype III in Iran: molecular and phylogenetic analysis. *Virus Genes*: 10. doi: [10.1007/s11262-026-02230-1](https://doi.org/10.1007/s11262-026-02230-1).
28. Kaletsane, M., A. Maphiri, and R. Netshikweta (2026). Modeling foot-and-mouth disease dynamics among livestock and wild ruminants: integrating community viral load and environmental transmission pathways. *Mathematics*, **14**(11): 29. doi: [10.3390/math14111812](https://doi.org/10.3390/math14111812).
29. Kim, D.W., S.Y. Lee, T.J. Kim, H. Kim, J.H. Hwang, S.Y. Park, Y.J. Ko, Y.H. Lee, J.H. Park, and S.H. Park (2026). Evaluation of an effective intradermal Foot-and-mouth disease vaccine for early protection. *Vaccines*, **14**(3): 14. doi: [10.3390/vaccines14030263](https://doi.org/10.3390/vaccines14030263).
30. Kim, J., J.J. Ha, M. Kim, W.S. Kwon, J. Yi, and D. Kim (2026). Increased ruminoreticular temperature after simultaneous lumpy skin disease and foot-and-mouth disease vaccination in Hanwoo (*Bos taurus coreanae*) cows. *Journal of Veterinary Science*, **27**(2): 11. doi: [10.4142/jvs.25267](https://doi.org/10.4142/jvs.25267).
31. Kim, J., S. Park, G. Lee, G. Cho, S. Hwangbo, J. Park, and Y. Ko (2026). Evaluation of an in-house developed Foot-and-mouth disease virus SAT 3 vaccine strain based on antigen productivity and inactivation kinetics for commercial feasibility. *Vaccines*, **14**(5): 12. doi: [10.3390/vaccines14050381](https://doi.org/10.3390/vaccines14050381).
32. Kim, J., S. Park, G. Lee, S. Hwangbo, G. Cho, J. Park, and Y. Ko (2026). Evaluation of antigen productivity and inactivation kinetics of a recombinant foot-and-mouth disease SAT1 vaccine strain. *Viruses-Basel*, **18**(5): 12. doi: [10.3390/v18050537](https://doi.org/10.3390/v18050537).
33. Lee, J.P., H.Y. Cho, W.R. Shin, D.Y. Park, I.H. Oh, C.I. Oh, J.M. Son, J.H. Min, J.Y. Ahn, and Y.H. Kim (2026). Viral capsid protein architecture informed selection of ssDNA aptamers for specific detection of FMDV. *Analytical Chemistry*: 10. doi: [10.1021/acs.analchem.5c04748](https://doi.org/10.1021/acs.analchem.5c04748).
34. Li, K., B. Zhu, S. Wang, X. Zhang, X. Wen, W. Cao, G. Zhu, H. Zheng, F. Yang, and Z. Zhu (2026). Foot-and-mouth disease virus 3D polymerase antagonizes the interferon signaling pathway by blocking STAT2 nuclear translocation (vol 363, 199671, 2025). *Virus Research*, **367**: 1. doi: [10.1016/j.virusres.2026.199721](https://doi.org/10.1016/j.virusres.2026.199721).
35. Li, Y., X. Ge, J. Yang, J. Li, W. Cui, X. Wang, and L. Tang (2026). The VP1 protein of Foot-and-mouth disease virus: Bridging pathogenicity and control strategies. *Veterinary Journal*, **317**: 17. doi: [10.1016/j.tvjl.2026.106699](https://doi.org/10.1016/j.tvjl.2026.106699).
36. Liu, H.Y., Y. Zhang, S.Y. Mu, F.P. Hou, L.X. Jiang, Z. Wang, H. Dong, M.M. Mehdi, H.C. Guo, and S.Q. Sun (2026). Foot-and-mouth disease virus-like particle mRNA vaccine induces strong humoral and cellular immunity. *Applied Microbiology and Biotechnology*, **110**(1): 13. doi: [10.1007/s00253-026-13812-2](https://doi.org/10.1007/s00253-026-13812-2).
37. Loeb, J. (2026). Foot-and-mouth confirmed in Cyprus (vol 198, pg 254, 2026). *Veterinary Record*, **198**(10): 1. doi: [10.1002/vetr.70782](https://doi.org/10.1002/vetr.70782).
38. Lv, L., Y. Su, S. Chen, W. Su, Y. Yin, P. Ning, S. Liu, W. Yuan, and L. Li (2026). HACC-TNF- α -VLP nanoparticles facilitate HSP90-dependent antigen cross-presentation to enhance CD8⁺ T cell and mucosal immunity against foot-and-mouth disease. *International Journal of Nanomedicine*, **21**: 20. doi: [10.2147/ijn.S600992](https://doi.org/10.2147/ijn.S600992).
39. Marques, M., Y. Wong, Z. Sun, A. Yasmin, J. Taylor, A. Ruggieri, T. Tuthill, and N. Locker (2026). The assembly of stress granules during Foot-and-mouth disease virus infection is uncoupled

- from activation of cellular intrinsic antiviral signalling. *PLoS Pathogens*, **22**(6): 28. doi: [10.1371/journal.ppat.1013722](https://doi.org/10.1371/journal.ppat.1013722).
40. Masrikan, M. and M.H. Aziz (2026). Comment on the use of participatory modelling to inform management of endemic foot-and-mouth disease. *Preventive Veterinary Medicine*, **253**: 1. doi: [10.1016/j.prevetmed.2026.106885](https://doi.org/10.1016/j.prevetmed.2026.106885).
 41. Mehmood, M.S., S.U. Rehman, H. Kareche, A. Azam, I. Sajjad, A. Akmal, and M.N. Saddique (2026). Global epidemiology and integrated control of foot-and-mouth disease within a One Health framework. *Discover Public Health*, **23**(1): 19. doi: [10.1186/s12982-026-01659-x](https://doi.org/10.1186/s12982-026-01659-x).
 42. Mu, S.Y., S.B. Shang, H. Dong, S. Wang, L.B. Chen, Z.H. Zhang, M.Y. Bai, Z.D. Teng, Y.Z. Ding, Y. Zhang, H.C. Guo, and S.Q. Sun (2026). T cell responses to nonstructural proteins promote cross-serotype immunity to *Foot-and-mouth disease virus*. *mBio*: 24. doi: [10.1128/mbio.03586-25](https://doi.org/10.1128/mbio.03586-25).
 43. Ndendya, J.Z. and M.J. Ng'oga (2026). Optimal control and cost-effectiveness analysis of a caputo fractional-order model for foot-and-mouth disease with environmental transmission. *Scientific African*, **32**: 20. doi: [10.1016/j.sciaf.2026.e03327](https://doi.org/10.1016/j.sciaf.2026.e03327).
 44. Osuagwu, J.U., J.M. Smith, and S.C. Merrill (2026). Testing control strategies for foot-and-mouth disease in New England using the InterSpread Plus model: impacts of regional zoning, early detection, and enhanced biosecurity. *Viruses-Basel*, **18**(4): 20. doi: [10.3390/v18040480](https://doi.org/10.3390/v18040480).
 45. Othusitse, L., T. Kabelo, K. Nkwe, L. Seoke, E. Fana, and K. Lebani (2026). *In vitro* assessment of foot-and-mouth disease vaccine immunogenicity: advances, challenges, and ethical considerations. *Frontiers in Veterinary Science*, **13**: 14. doi: [10.3389/fvets.2026.1791118](https://doi.org/10.3389/fvets.2026.1791118).
 46. Parekh, K., D. Paton, C. Browning, G. Wilsden, V. Mioulet, B. Wood, A. McCarron, H. Bull, J. Baguisi, V. Chantler, E. Pituco, M. Sanchez-Vazquez, N. JKnowles, D. King, and A. Ludi (2026). Preparing for exotic foot-and-mouth disease virus outbreaks in the European neighbourhood: cross-neutralisation of internationally available vaccines against South American serotype O and serotype A field isolates. *Vaccine*, **86**: 4. doi: [10.1016/j.vaccine.2026.128718](https://doi.org/10.1016/j.vaccine.2026.128718).
 47. Railey, A., S. Kerfua, and T. Marsh (2026). Social, economic, and transboundary importance of Foot-and-mouth disease quarantines in East Africa. *Journal of Rural Studies*, **126**: 8. doi: [10.1016/j.jrurstud.2026.104256](https://doi.org/10.1016/j.jrurstud.2026.104256).
 48. Ramakrishnan, M.A. and S. Ramasamy (2026). Editorial: Advances in ruminant viruses. *Frontiers in Cellular and Infection Microbiology*, **16**: 3. doi: [10.3389/fcimb.2026.1831551](https://doi.org/10.3389/fcimb.2026.1831551).
 49. Ranjan, R., H. Joshi, V. Pandey, J. Biswal, S. Das, B. Barik, J. Mohapatra, S. Mallick, and R. Singh (2026). Kinetics of foot-and-mouth disease antibody response in cattle vaccinated with FMD-HS-BQ combined vaccine under field condition. *Frontiers in Microbiology*, **17**: 12. doi: [10.3389/fmicb.2026.1800886](https://doi.org/10.3389/fmicb.2026.1800886).
 50. Renault, V., L. Delooz, M.F. Humblet, and C. Saegerman (2026). Resilience of Belgian cattle farmers towards infectious diseases outbreaks. *Transboundary and Emerging Diseases*, **2026**(1): 10. doi: [10.1155/tbed/2415909](https://doi.org/10.1155/tbed/2415909).
 51. Rout, M., E. Ralte, C. Neihthangpuii, J. Mohapatra, S. Subramaniam, and R. Singh (2025). A comprehensive serosurveillance of foot-and-mouth disease in pig population of Mizoram state in eastern Himalayan agro-climatic region in India. *Indian Journal of Animal Sciences*, **95**(12): 89–1154. doi: [10.56093/ijans.v95i12.154381](https://doi.org/10.56093/ijans.v95i12.154381).
 52. Selvaraj, D.P.R., P. Saravanan, A. Madhavan, D. Adwitiya, C. Tilak, B.P. Sreenivasa, S. Gopinath, S. Elackiya, S. Thiagarajan, and P. Chaudhuri (2026). Bioinformatics based design of thermostable virus-like particles-based vaccine for foot-and-mouth disease serotype A and *in vivo* evaluation in guinea pigs. *Frontiers in Cellular and Infection Microbiology*, **16**: 15. doi: [10.3389/fcimb.2026.1760751](https://doi.org/10.3389/fcimb.2026.1760751).

53. Singh, R.P. and J.K. Mohapatra (2026). Review and evaluation of data defining FMD vaccine potency standards for endemic countries. *VirusDisease*: 10. doi: [10.1007/s13337-026-00959-9](https://doi.org/10.1007/s13337-026-00959-9).
54. Sitali, M., L. Matumba, and M. Chelenga (2026). Do foot and mouth disease vaccines affect bovine bull fertility? A systematic review and meta-analysis. *Veterinary and Animal Science*, **33**: 12. doi: [10.1016/j.vas.2026.100677](https://doi.org/10.1016/j.vas.2026.100677).
55. Smith, M., C. Hanthorn, and M. Sanderson (2026). A scoping review of farm-level biosecurity measure effectiveness against foot-and-mouth disease to inform planning and preparedness efforts in the United States. *Frontiers in Veterinary Science*, **13**: 15. doi: [10.3389/fvets.2026.1819419](https://doi.org/10.3389/fvets.2026.1819419).
56. Smith, M. and M. Sanderson (2026). Animal disease traceability: evaluation of simulated foot-and-mouth disease outbreak metrics with implementation of improved contact tracing of cattle. *Frontiers in Veterinary Science*, **13**: 15. doi: [10.3389/fvets.2026.1804982](https://doi.org/10.3389/fvets.2026.1804982).
57. Sopeju, A.E., A.O. Faneye, A.R. Peters, and A.B. Onoja (2026). Seroepidemiology and serotype diversity of Foot-and-mouth disease virus in cattle and other domestic ungulates across Nigeria. *BMC Microbiology*, **26**(1): 11. doi: [10.1186/s12866-026-04774-6](https://doi.org/10.1186/s12866-026-04774-6).
58. Steele, S. and Y. Yupiana (2026). Author response to comment on "The use of participatory modelling to inform management of endemic foot-and-mouth disease (FMD) in Nusa Tenggara Barat (NTB), Indonesia" (Steele *et al.*, 2026). *Preventive Veterinary Medicine*, **253**: 2. doi: [10.1016/j.prevetmed.2026.106886](https://doi.org/10.1016/j.prevetmed.2026.106886).
59. Wisnewski, K., C. Lorenz, S. Weber, S. Schmidt, R. Waters, P. Eblé, A. Dekker, W. Gerner, and M. Eschbaumer (2026). Absence of a dose-response relationship after intra-oropharyngeal inoculation of pigs with Foot-and-mouth disease virus serotype O. *Veterinary Research*, **57**(1): 11. doi: [10.1186/s13567-026-01751-9](https://doi.org/10.1186/s13567-026-01751-9).
60. Yassin, A.A., Y. Sewell, A.B. Ludi, A. Burman, G. Limon, M. Afzal, D. Horton, D.P. King, and A.S. Asfor (2026). Performance of prototype serological immunoassays for Foot-and-mouth disease virus using G-H loop peptides and stabilized virus-like particles. *Microbiology Spectrum*: 13. doi: [10.1128/spectrum.03514-25](https://doi.org/10.1128/spectrum.03514-25).
61. Yeo, S., K. Hole, T. Chestley, G.E. Seo, A. Majer, K. Handel, M. Nebroski, O.L.V. Lung, C. Nfon, and S. Babiuk (2026). Rapid sequence identification of Foot-and-mouth disease virus utilizing FMDV-ONTAPS: the Oxford Nanopore Technologies Amplicon P1 Sequencing protocol. *Viruses-Basel*, **18**(4): 24. doi: [10.3390/v18040418](https://doi.org/10.3390/v18040418).
62. Yuan, Y.B., B. Ni, X.X. Tian, J. Cui, Y.Q. Zhang, Y.X. Hu, D.X. Zheng, Y.L. Zou, X.J. Yu, C.J. Liu, S. Liu, W.J. Ren, X. Chang, Y.X. Wang, S.Q. Ge, R. Wei, Y.P. Chen, X.D. Wu, J.M. Li, Z.L. Wang, and B.X. Huang (2026). Development of a point-of-care diagnostic method for FMDV SAT 2 using RT-RAA-CRISPR technology. *International Journal of Biological Macromolecules*, **364**: 10. doi: [10.1016/j.ijbiomac.2026.152271](https://doi.org/10.1016/j.ijbiomac.2026.152271).
63. Yupiana, Y., M.A. Stevenson, M. Edwards, R.V. Ekowati, Ermawanto, I. Permatasari, R. Morita, S. Yulianti, Nurhayati, T.D. Utami, D. Nugroho, H.P. Kurniawan, A. Muljono, S. Steele, A. Wiethoelter, G.A. Andre, S. Alya, M. Hultatang, M. Muslih, M. Riadi, J. Weaver, and I. Syafrison (2026). Simulation modelling as a tool to guide control strategies for Foot-and-mouth disease in an endemic country: Nusa Tenggara Barat, Indonesia 2023-2024. *Preventive Veterinary Medicine*, **253**: 9. doi: [10.1016/j.prevetmed.2026.106873](https://doi.org/10.1016/j.prevetmed.2026.106873).
64. Zhang, X., P. Jia, Z. Fan, X. Cao, and Z. Chen (2026). Accidental intravitreal injection of a veterinary inactivated FMD vaccine resulting in noninfectious intraocular inflammation: a case report. *Frontiers in Medicine*, **13**: 9. doi: [10.3389/fmed.2026.1796518](https://doi.org/10.3389/fmed.2026.1796518).

65. Zhang, Y., F.H. Meng, L. Li, G.P. Liu, Q. Tian, Y.Y. Liu, T. Li, L.Y. Gu, J. Gong, C.X. Liu, X. Wen, F. Wan, H.M. Xiao, Y.C. Liu, S.Y. Wang, and J.W. Cao (2026). Mechanistic role of lipid metabolism in Foot-and-mouth disease virus (FMDV) replication. *Veterinary Research*, **57**(1): 14. doi: [10.1186/s13567-026-01762-6](https://doi.org/10.1186/s13567-026-01762-6).
66. Zhu, Y.Q., X.T. Shi, A. Burman, Z.W. Shi, T. Xi, H.C. Liao, J.C. Luo, J. Chen, L. Wang, Y.G. Xie, Q.Q. Yang, H. Tian, H.X. Zheng, and D.P. King (2026). Conserved linear epitopes in the VP1 protein of Foot-and-mouth disease virus serotype SAT 2: identification and characterization. *Transboundary and Emerging Diseases*, **2026**(1): 16. doi: [10.1155/tbed/2217447](https://doi.org/10.1155/tbed/2217447).

Annex 3: Vaccine recommendations

This report provides recommendations of FMDV vaccines to be included in antigen banks. These outputs are generated with a tool (called PRAGMATIST) that has been developed in partnership between WRLFMD and EuFMD (<http://www.fao.org/3/cb1799en/cb1799en.pdf>; <https://doi.org/10.3389/fvets.2022.1029075>). These analyses accommodate the latest epidemiological data collected by the WOA/FAO FMD reference laboratory network regarding FMDV lineages that are present in different *source regions* (see Table 1 in Section 3.10, above), as well as available *in vitro*, *in vivo* and field data to score the ability of vaccines to protect against these FMDV lineages.

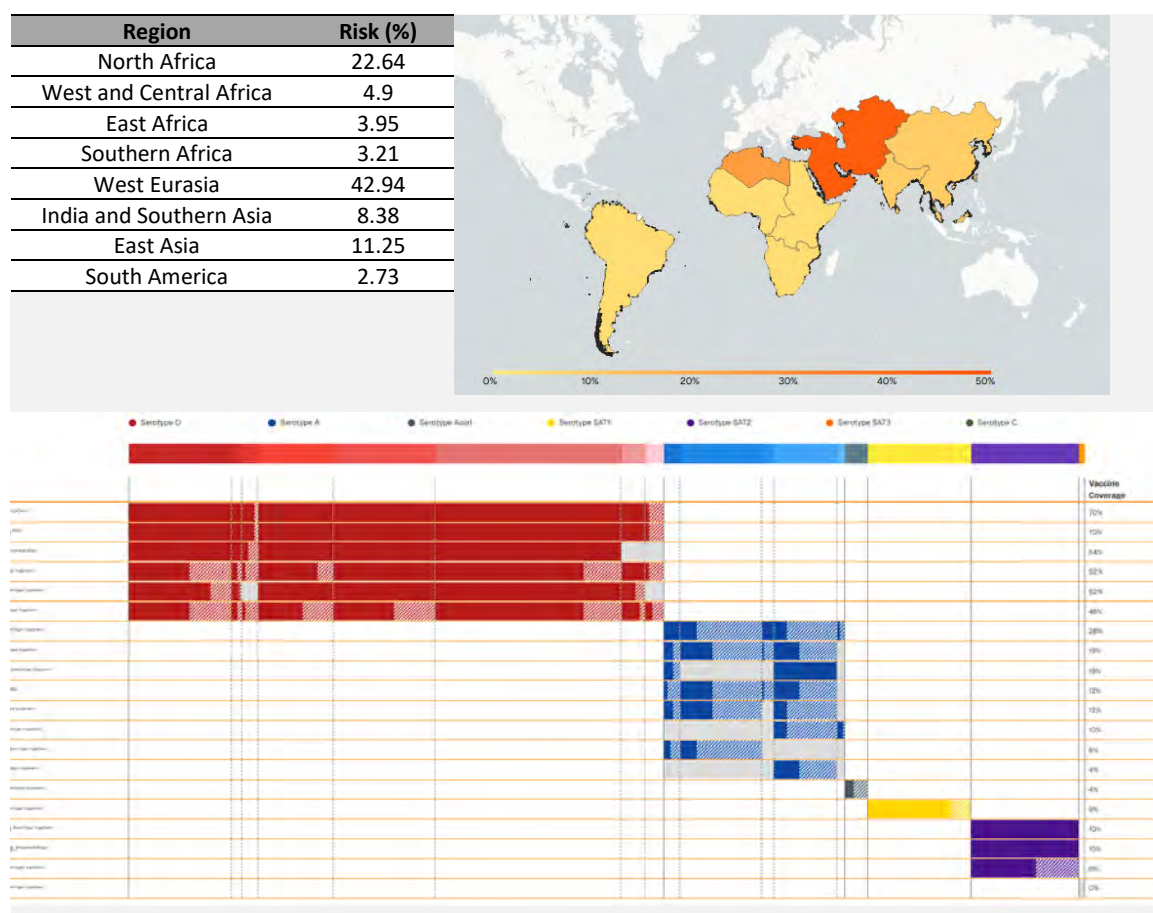


Figure 2: Recommendations from WRLFMD on FMD virus strains to be included in FMDV vaccine antigen bank for Europe (July 2026)

Please contact WRLFMD or EuFMD for assistance to tailor these outputs to other geographical regions. An online version of the tool is available on <https://www.openfmd.org/dashboard/pragmatist/>.

NB: Vaccine-coverage data presented is based on available data and may under-represent the true performance of individual vaccines.

Further information about the PRAGMATIST system has been published in *Frontiers in Veterinary Science* - see: <https://doi.org/10.3389/fvets.2022.1029075>.

Annex 4: Brief round-up of EuFMD and WRLFMD activities

Courses & Training

- The [EuFMD's open-access Courses](#) provide convenient self-paced training which you may study anytime, anywhere, free of charge:
 - [Ask the Experts webinars](#); The EuFMD has held a number of events covering Foot-and-mouth disease and lumpy skin disease as “Ask the Experts” interactive webinar. These one-hour webinars provide an overview about a range of topics that help you enhance your skills in Foot-and-Mouth Disease and lumpy skin disease preparedness, including biosecurity, outbreak investigation, surveillance, vaccination and post-vaccination.
 - [Introduction to Foot-and-Mouth Disease](#) (also available in [French](#), [German](#), [Italian](#) and [Turkish](#)); This course introduces foot-and-mouth disease (FMD), its importance, diagnosis, outbreak investigation and the control measures that might apply in a previously free country experiencing an outbreak. This course is suitable for all of those with an interest in FMD control. No prior knowledge of FMD is required.
 - [Introduction to Lumpy Skin Disease](#) (also available in [French](#)); This short module introduces lumpy skin disease, its distribution, impacts, aetiology, diagnosis epidemiology and control options. This course is suitable for all of those with an interest in LSD, in affected countries or those at-risk.
 - [Introduction to Rift Valley Fever](#) (also available in [French](#)); This course introduces the diagnosis, prevention and control of RVF, and is suitable for those based in countries that are either endemic or at-risk. The course is designed to be easy to study on a smartphone. This course is suitable for anybody who would like to know more about RVF. It will be of particular interest to field veterinarians (public and private) and veterinary paraprofessionals who are working in countries that are either endemic or at high risk of RVF. No prior knowledge of RVF is required.
 - [Introduction to sheep pox and goat pox](#); This short, open-access and self-directed course aims to provide an overview of sheep pox and goat pox, recognise or suspect the disease in the field, identify the correct samples to collect and the relevant control measures.
 - [What is the Progressive Control Pathway?](#) (also available in [Arabic](#)); This short e-learning module provides an overview of the Progressive Control Pathway for Foot-and-Mouth Disease (PCP-FMD), the tool used to FMD control under the GF-TADs Global Strategy. This course is suitable for all of those with an interest in FMD control in countries which are not free of the disease and is a good introduction for those new to the PCP-FMD.
 - [Introduction to the Risk Assessment Plan](#) (also available in [French](#)); This course is part of a series of self-directed online courses that aim to support progress on the

Progressive Control Pathway for Foot-and-Mouth Disease (PCP-FMD).

The Risk Assessment Plan describes how the country intends to embark on the PCP-FMD and gain an understanding of the epidemiology of FMD in the country. Ultimately, the country will use that knowledge to develop a risk-based plan to reduce the impact of FMD (Risk-Based Strategic Plan).

This course will be of interest to anyone who is involved in control of FMD in countries which are not currently free of the disease. It is particularly aimed at veterinarians who are working with countries in PCP-FMD Stage Zero and beginning the process of developing a RAP.

- o [Introduction to the Risk-Based Strategic Plan](#); This course introduces the Risk-Based Strategic Plan (RBSP). The RBSP describes how a country will reduce the impact of FMD in at least one husbandry sector or geographical area. The RBSP applies the outputs and knowledge gained through the implementation of the activities in PCP-FMD Stage One. An accepted RBSP is required for countries to be recognized as in PCP-FMD Stage Two.

This course will be of interest to anyone who is involved in control of FMD in countries which are not currently free of the disease. It is particularly aimed at veterinarians who are working with countries in PCP-FMD Stage One, and beginning the process of developing an RBSP.

- o [Introduction to the Official Control Programme](#); This course is part of a series of self-directed online courses that aim to support progress on the Progressive Control Pathway for Foot-and-Mouth Disease (PCP-FMD).

The OCP describes how the country will eliminate virus circulation of FMD in at least one zone of the country, to mitigate the risks of FMD to the point where an application to WOA for official recognition of freedom from FMD may be successful and suitable. Completion of the OCP is the indicator outcome for entry into PCP-FMD Stage 3, as defined in the PCP-FMD guidelines.

This course will be of interest to anyone who is involved in control of FMD in countries which are not currently free of the disease. It is particularly aimed at veterinarians who are working with countries in PCP-FMD Stage Two and beginning the process of developing an OCP.

- o [Simulation Exercises for Animal Disease Emergencies](#); The Simulation Exercise for Animal Disease Emergencies online training course introduces simulation exercises as part of preparedness for animal disease emergencies and explains the processes involved in planning, conducting and evaluating simulation exercises. It also describes the various tools, approaches and strategies to support decision-making, as well as the different phases of an exercise.

This course is designed for a range of stakeholders with an interest in learning about animal health emergency preparedness and planning.

- o [Introduction to the FMD Minimum Biorisk Management Standards](#); This course aims to provide an overview of the Minimum Biorisk Management Standards for foot-and-mouth disease laboratories (MBRMS), explaining the scope and the risks associated with the standards.

This course is directed to National Competent Authorities, Institute directors for FMD facilities and biorisk managers in FMD free countries in the European region to ensure they are aware of the importance and implications of their role in ensuring that laboratories handling infectious FMD virus (Tier D) and performing FMD diagnostic

tests without handling infectious FMD virus (Tier C) adhere to the FMD Minimum Biorisk Management Standards.

- o [Introduction to Animal Health Surveillance](#); This short, open access and self-directed course aims to provide an overview of the importance and key activities of animal health surveillance. It also forms the basis for further, in-depth courses on passive surveillance.
- o [Introduction to the socioeconomics of foot-and-mouth and similar transboundary animal diseases](#); This course aims to introduce non-expert learners to the fundamental concepts required to understand the socioeconomic analysis of animal disease. It also forms the basis for further, in-depth training on socioeconomic impact assessment and practical cost-benefit analysis of FMD and similar transboundary animal diseases.

Meetings

- [Standing Technical Committee of the EuFMD - STC+](#); Bari Italy – 21-23 October 2026.
 - [108th Session of the Executive Committee \(EuFMD\)](#); FAO HQ, Rome, Italy – 28 October 2026.
 - [47th General Session of the EuFMD](#); FAO HQ, Rome, Italy – 5-6 May 2027.
- The Commission's Member Nations meet in General Session every two years – most of the delegates are the Chief Veterinary Officers of their respective countries. At the General Session, the Member Nations review the activities of the previous biennium, agree a work plan and budget for the next biennium and elect an Executive Committee and a Standing Technical Committee.

Other sources of information from EuFMD

- EuFMD webpages (<https://www.fao.org/eufmd/>).
- EuFMD has a constantly updated series of short podcasts relating to the FAST world (<http://www.fao.org/eufmd/resources/podcasts/>).
- EuFMD Emergency Toolbox (<https://www.fao.org/eufmd/resources/emergency-toolbox/en/>) listing all open-access resources concerning FAST diseases, available in multiple languages.
- Leaflets for the purpose of raising awareness of FMD in the Thrace region. Available in Arabic, Bengali, Bosnian, Bulgarian, English, Greek, Montenegrin, Portuguese, Serbian and Turkish (<https://www.fao.org/publications/card/en/c/CB4903EN>).
- Join the EuFMD WhatsApp channel to receive EuFMD updates (<https://whatsapp.com/channel/0029VaHkPku2JI8DJFVFcw3r>).

openFMD

[openFMD](#) provides a platform to promote sharing of Foot-and-Mouth Disease (FMD) information and open collaborations for FMD research, by addressing data gaps and improving transparency, in order to gain a better understanding of the epidemiology and evolution of globally circulating FMD virus lineages.

openFMD is a collaboration between the [FAO/WOAH FMD Reference Laboratories Network](#), the [FAO World Reference Laboratory for FMD \(WRLFMD\)](#) at [The Pirbright Institute](#) and the

[European Commission for the Control of Foot-and-Mouth Disease \(EuFMD\).](#)



FAO four betters. Better life, better environment,
better nutrition, better production.

EuFMD's programme, tools and initiatives

FAST

Foot-and-mouth And
Similar Transboundary
animal diseases

Dt

EuFMD digital
transformation

Tom

EuFMD training
management system

Microlearning

EuFMD micro learning

Vlearning

EuFMD virtual learning

SimExOn

Simulation exercises
online

Get prepared

Emergency preparedness toolbox

Risk Comms

EuFMD risk communications

RMT-FAST

Risk monitoring tool for foot-and-mouth
and similar transboundary animal diseases

Pragmatist

Prioritization of antigen management
with international surveillance tool

EuFMDiS

European foot-and-mouth disease
spread model

Vademos

FMD vaccine demand
estimation model

GVS

Global vaccine
security

PQv

Vaccine
prequalification

PCP

Progressive control
pathway

PSO

Pcp practitioner
officers

PPP

Public private
partnership

PROTECT RESPOND CONTROL

MOVE FAST

FAST, Foot-and-mouth
And Similar Transboundary
animal diseases.



EuFMD structure

Secretariat, Executive Committee,
Standing Technical Committee (STC),
Special Committee on Risk Monitoring,
Integrated Surveillance and Applied
Research (SCRISAR), Special Committee
on Biorisk Management (SCBRM), Regional
Groups for FAST Coordination, Standing
Committee on Prequalification of Vaccines
against FAST diseases (SCPQv), Steering
Committee TOM (SCTOM).

EuFMD Secretariat

Animal Production and Health Division,
(NSA) / European Commission for the
Control of Foot-and-Mouth Disease
(EuFMD)

eufmd@fao.org

fao.eufmd.org

eufmdlearning.works

eufmd-tom.com

Food and Agriculture Organization
of the United Nations
Rome, Italy



Thinking of the
environmental
footprint

Together against
wasting resources,
think twice before printing



SUSTAINABLE
DEVELOPMENT
GOALS



Department
for Environment
Food & Rural Affairs



Biotechnology and
Biological Sciences
Research Council