



Food and Agriculture
Organization of the
United Nations

eofmd
european commission for the
control of foot-and-mouth disease

European neighborhood

EuFMD Pillar II

Report on significant FAST disease events and information

October - December 2021

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

EuFMD's programme, tools and initiatives

FAST

Foot-and-mouth And
Similar Transboundary
animal diseases

Pillars

eufmd activities

Dt

eufmd digital
transformation

vlearning

eufmd virtual learning
centre

microLearning

eufmd virtual learning

vlc EA

virtual learning centre
for East Africa

Tom

eufmd training
management system

SimExOn

simulation exercises
online

KnowBank

eufmd knowledge bank

GetPrepared

emergency preparedness toolbox

RiskComms

risk communications

SQRA

a method for spatial qualitative
risk analysis applied to fmd.

Pragmatist

prioritization of antigen management
with international surveillance tool

EuFMDiS

european foot-and-mouth disease
spread model

Impact

impact calculator

Vademos

fmd vaccine demand
estimation model

GVS

global vaccine
security

PQv

vaccine
prequalification

PCP

progressive control
pathway

PSO

pcp practitioner
officers

VPP

veterinary
paraprofessionals

PPP

public private
partnership

Sustainable development goals, UN-SDGs. EuFMD's programme has a focus on



Together against wasting resources, think twice before printing.



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Acronyms and abbreviations

ADNS	Animal Disease Notification System
BEF	Bovine ephemeral fever
ELISA	Enzyme-linked immunosorbent assay
FAST diseases	Foot-and-mouth and similar transboundary animal diseases
FMD	Foot-and-mouth disease
GF-TADs	Global Framework for the Progressive Control of Transboundary Animal Diseases
LR	Large ruminants
LSD	Lumpy Skin Disease
NSP	Non-structural proteins
OIE	World Organization for Animal Health
PCP-FMD	Progressive control pathway for Foot-and-Mouth Disease
PCR	Polymerase chain reaction
PD ₅₀	Protective dose of 50 percent (a measure of vaccine potency)
PPR	Peste des petits ruminants
REMESA	Mediterranean animal health network
RVF	Rift Valley fever
SGP	Sheep and Goat Pox
SOI	Statement of Intentions between Transcaucasia and neighboring countries
SP	Structural proteins
SR	Small ruminants
TADInfo	Transboundary Animal Disease Information System (Egypt)
WAHIS	World Animal Health Information System

Introduction

The European Commission for the Control of Foot-and-Mouth Disease (EuFMD) risk reduction program in the European neighboring regions of North Africa, Middle East, and South East European Neighborhood is delivered within the Hold-FAST strategy. This strategy continues the focus upon FMD risk reduction and extends the scope of preparedness and risk reduction activities to similar transboundary animal diseases which pose an immediate threat to the EuFMD Member Nations.

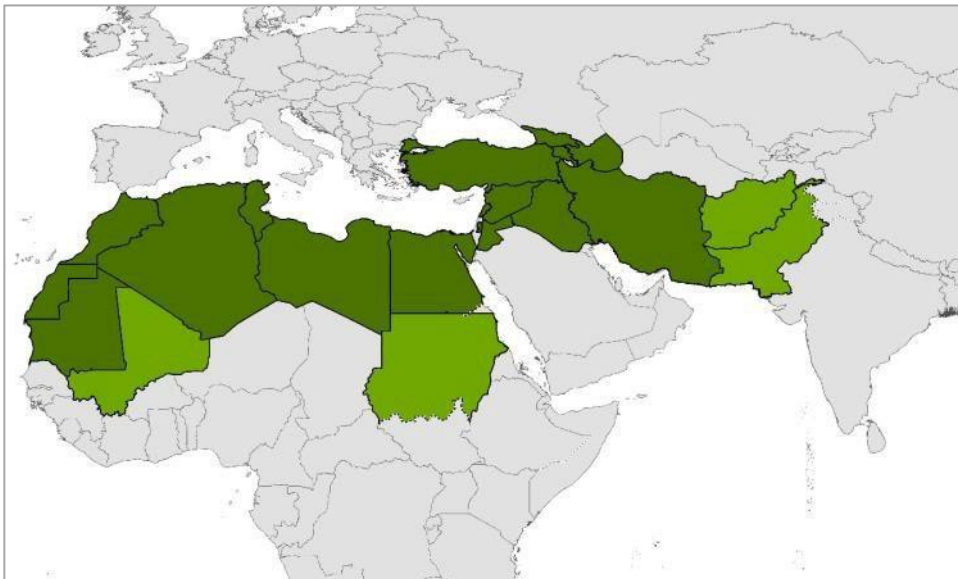
The program focuses on the control of Foot-and-mouth And Similar Transboundary animal diseases (FAST) in the neighboring regions through the improvement of prevention, surveillance, and control. In this context, the FAST quarterly report of significant events provides relevant and regular risk information to risk managers operating in EuFMD Member Nations and neighboring countries.

The constant monitoring of the epidemiological situation together with information on the implementation of control and surveillance strategies increases awareness of major transboundary animal disease threats for Europe and the regions of North Africa, the Middle East, and South East European Neighborhood.

The European neighborhood

The neighborhood of the current 39 EuFMD Member Nations is made up by non-EuFMD Members that either have land borders with EuFMD Members, are members of the Mediterranean animal health network (REMESA), or whose animal health status provides an early warning for FAST disease spread to the neighborhood of Europe. The activity of Pillar II includes EuFMD Member Nations in the European neighboring region (Turkey, Georgia) (Figure 1).

Figure 1. Countries included in the activities of the EuFMD Pillar II



EuFMD Member Nations in European neighboring region: Turkey, Georgia.

Having land borders with EuFMD Member Nations: Armenia, Azerbaijan, the Islamic Republic of Iran, Iraq, the Syrian Arab Republic, Lebanon, Palestine, Jordan, and Egypt.

Non-EU Members of REMESA: Jordan, Lebanon, Egypt, Libya, Tunisia, Algeria, Morocco, and Mauritania.

Countries significant for epidemic spread of FAST diseases to the above countries: Sudan, Mali, Afghanistan, and Pakistan.

Source: Adapted from United Nations World map, May 2019.

Significant events and information

The data reported to the World Organization for Animal Health (OIE), and mentioned in this publication, have been sourced from the World Animal Health Information System (WAHIS) and refer to the period between 1st October and 31st December 2021. Other information has been obtained through the EuFMD activities and networks in the European neighborhood. Information referring to the period before 1st October might be reported when relevant or not previously reported.

Foot-and-mouth disease (FMD)

Middle East

Country	FMD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Egypt	2 outbreaks in October 2021	-	In 2021. Passive surveillance: 6 outbreaks out of 47 suspected villages. Active surveillance: 7 cases of FMD out of 281,688 investigated animals.	1 st vaccination campaign in 2021: 70% coverage for LR, 14% for SR. 2 nd campaign of 2021: 48% coverage for LR, 17% for SR. 3 rd vaccination campaign started on 16/11/2021 and is ongoing.	Smuggling animals is a risk for FMD introduction	Data shared by the country
Palestine	December 2021 – Two outbreaks confirmed by RT-PCR. In a mixed herd of sheep/goats in Al – Hadidiya. 17 deaths, 60 cases out of susceptible 762 animals. Serotype O/ME-SA/PanAsia-2/ANT-10 December 2021 - Outbreak in cattle in Gaza, East Jabalia in December 2021, with 250 cases. Confirmed as Serotype O/EA-3.	Unvaccinated nomadic farm quarantined, isolation of all clinically sick animals. Unvaccinated animals due to shortage in vaccine supply.	2021 until end of Nov: Passive surveillance, 5 cases from 24 flocks (positive by RT-PCR), and 1 positive by NSP.	Start of a ring vaccination in a 3 km radius and investigation triggered in the 10 km zone in response to outbreak. General: sheep and goats are vaccinated according to risk-based analysis and at-risk hotspots. Dairy cattle are vaccinated twice a year. Coverage: >90% for cattle, variable for small ruminants. In 2021: 9,441 SR and 25,157 LR vaccinated. Vaccine type: Aftopore vaccine from Merial (O and A strains). Shortage of vaccine reported at the end of 2021.	-	OIE-WAHIS (IN_152961, FUR_153104) Data shared by the country OIE-WAHIS (IN_153078)

	December 2021 – Outbreak in AL-Bqaiia / Humsah on a nomadic sheep and goat farm, with 250 cases. January 2022 – 40 cases in cattle in Marj Na'je.					
Jordan	5 outbreaks in Ammam, Irbid, Mafraq and Al Karak Governorates affecting 237 animals (cattle sheep and goats) in November 2021, confirmed by RT-PCR. The outbreak in Irbid was confirmed as Serotype O/ME-SA PanAsia-2 ANT-10	-	-	Ring vaccination in affected zone with radius of 10km. Serotypes A and O. 874,000 ml of vaccine were distributed targeting 724,000 sheep and goats and 50,000 cattle	-	OIE-WAHIS (FUR_153148) Data shared by the country
Lebanon	-	-	Sero-surveillance, 2021: LR = 97/510 (19%), SR = 255/1425 (17.9%).	Between 2019-2021: 200,000 SR and 10,000 cattle vaccinated.	-	Data shared by the country

North Africa

Country	FMD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Morocco	-	No outbreak since July 2019 Control program endorsed by OIE.	-	The strategy is to vaccinate twice a year (each 6 months) in the borders and high-risk areas.	-	Data shared by the country
Algeria	-	Last outbreak was in March 2019	-	In 2021 - 149,020 bovines vaccinated (1 st campaign ongoing)	-	Data shared by the country
Libya	-	-	In 2021: Passive surveillance: 11 confirmed cases out of suspected 96.	Mass vaccination twice a year for cattle. Ring vaccination for sheep and goats.	-	Data shared by the country

South East European Neighborhood (SEEN)

Country	FMD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Turkey	<p>6 outbreaks were reported in Anatolia in the 4th quarter of 2021</p> <p>No outbreaks were recorded in provinces bordering with Georgia, Armenia, Azerbaijan, and Iran.</p>	Serotype O - sublineage O/ PanAsia-2/Qom15 and PanAsia-2/ANT10.	<p>For clinical surveillance, 1,800,000 animals were examined for FMD in the high-risk area, Istanbul, and 14,560 in the low-risk areas, Edirne, Çanakkale, Tekirdağ and Kirklareli.</p> <p>28,400 sera were collected and tested by NSP ELISA as part of the national FMD serosurveillance – to estimate NSP prevalence and evaluate vaccine performance. Results expected by the end of January of 2022.</p>	<p>Autumn Preventive and 10 PD₅₀ for emergency vaccination has been performed in the surveillance zone for all susceptible species planned from 15th September – 15th November. The campaign targets only large ruminants in Anatolia and both large and small ruminants in Thrace, including a booster vaccination for primo-vaccinates.</p> <p>Overall >94% vaccination coverage was achieved by Autumn LR vaccination campaign.</p>	-	Data shared by the country, National Database system, VETBIS.
Azerbaijan	-	-	<p>Passive and active surveillance. Carried out post-vaccination serological survey for large and small ruminants after the autumn vaccination campaign.</p>	<p>2,187,505 cattle and 3,570,522 small ruminants were vaccinated in September-November. Vaccine coverage for autumn vaccination campaign is 88.7% for cattle and 46.9% for small ruminants.</p>	-	Data shared by the country - National Veterinary Authority
Armenia	-	-	<p>Passive and active surveillance.</p> <p>A post-vaccination serological survey for large and small ruminants after the autumn vaccination campaign is on-going. 4,400 sera were collected and tested by NSP & SP (1,100 sera) ELISA as part of the national FMD serosurveillance – to estimate NSP prevalence and evaluate vaccine performance. Results expected by the end of the January.</p> <p>For clinical surveillance 1,007 LR and 1,060 SR were examined for FMD in the Syunik (32 communities) and Lori marzes (21 communities) after the autumn vaccination campaign.</p>	<p>139,209 large ruminants and 46,483 small ruminants were vaccinated in October - November 2021 in all regions.</p>	-	Data shared by the country

Georgia	-	-	Active surveillance has been conducted. NSP serosurveillance (main surveillance and follow up) has been conducted, in total 3,500 samples have been tested, results of which are pending.	Autumn prophylactic vaccination is complete. During the reporting period 735,507 animals were vaccinated: 324,462 LR and 411,045 SR.	-	Data shared by the country
Iraq	No official reports of outbreaks. Country is considered endemic.	-	-	Illegal movement of local animal dealers and sellers between provinces	-	Data shared by the country

Peste des petits ruminants (PPR)

North Africa

Country	PPR Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Tunisia	39 registered outbreaks	-	-	No vaccination applied till now (soon the vaccination will be included in the control program as part of the eradication strategy)	-	Data shared by the country
Morocco	-	-	-	A mass vaccination programme was performed for 25 million small ruminants.	-	Data shared by the country
Algeria	-	-	-	A vaccination campaign is ongoing. 5,146,358 small ruminants are vaccinated this year.	-	Data shared by the country

South East European Neighborhood

Country	PPR Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Turkey	12 outbreaks of PPR recorded in this quarter; no outbreaks in provinces bordering with Georgia, Armenia, Azerbaijan, and I.R Iran.	A risk-based control strategy for Thrace has been developed to aim for zonal freedom in Thrace region for PPR.	Passive surveillance for disease reporting is conducted in the Thrace region. 12,560 small ruminants were clinically examined for PPR in Thrace region. 21,546 small ruminants were clinically examined for PPR in other areas of Turkey.	Newborn non-vaccinated small ruminants were vaccinated in Anatolia as preventive vaccination; ring vaccination was used as outbreak response. Due to preparation for zonal freedom, no vaccination against PPR is conducted in Thrace.	-	Data shared by the country, National Database system, VETBIS.
Georgia	-	-	-	55,097 small ruminants (new generation) were vaccinated in this reporting period. Due to preparation for disease free status, no vaccination against PPR is planned to be conducted in future.	-	Data shared by the country
Azerbaijan	-	-	Active serological surveillance for disease free status	-	-	Data shared by the country
Iraq	25 cases of PPR were reported in districts of the governorates Alanbar and Dayla and were diagnosed clinically and by RT-PCR.		-	-	-	Data shared by the country
Iran (Islamic Republic of Iran)	43 outbreaks were reported in this quarter. The incidence of disease decreased in this quarter in comparison to the previous quarter.	All sequenced circulating viruses were lineage 4.	Passive surveillance and risk-based active surveillance in ongoing.	3,523,951 sheep and goats were vaccinated with complete coverage.	-	Data shared by the country

Lumpy skin disease (LSD)

Middle East

Country	LSD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Egypt	6 outbreaks of LSD were reported in the autumn of 2021	-	Passive surveillance	-	-	Data shared by the country

South East European Neighborhood (SEEN)

Country	LSD Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Azerbaijan	-	-	Passive surveillance	108,910 cattle were vaccinated in September - November 2021	-	Data shared by the country
Armenia	-	-	Passive surveillance	3,739 LR were vaccinated with "POX and LSD" vaccine in high-risk areas in October-November.	-	Data shared by the country
Turkey	No outbreaks were reported in Anatolia in this period	A national strategy has been conducted for gaining free status for LSD in Turkey. Additionally, a project has been implemented for surveillance and vaccination as well as to improve capacity.	18,000 LR were clinically examined for LSD in the Thrace region. Passive disease reporting is also implemented.	Annual mass vaccination, with sheep and goat pox vaccine used in Anatolia region. Neethling vaccine is used in Thrace region.	-	Data shared by the country, VETBIS
Georgia	-	-	Passive surveillance in place	Prophylactic vaccination has been conducted in risk zones with a total of 245,684 LR vaccinated. In the reporting period 41,073 animals were vaccinated.	-	National Food Agency.
Iraq	Outbreaks have been reported in Messan and Al Anbar (14 cases)	-	-	-	The presence of insects and mosquitoes as a vector factor in	Data shared by the country

					the spring and autumn seasons, and the lack of environmentally friendly insecticide control due to lack of budget	
Iran (Islamic Republic of Iran)	There were 6 outbreaks in cattle reported in this quarter, and up until now, the disease condition has been stable.	-	Passive surveillance	In this quarter 29,888 bovines were vaccinated with a heterologous vaccine (RM-65 and Gorgan pox virus vaccines) and 707,774 bovines were vaccinated with a homologous vaccine (Neethling vaccine). Vaccination is free of charge for villagers and nomadic farmers, while payment is required for animals of large-scale dairy farms.	-	Data shared by the country

Rift Valley fever (RVF)

North Africa

Country	RVF Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Libya	Outbreaks in sheep and goats reported in the Al-Wahat region in November 2021, based on clinical signs and serological findings.	-	-	-	-	ProMED (Archive Number: 20211201.8700000).
Mauritania	14 clinical cases of RVF in sheep in Hold El Gharbi region, reported in September 2021, confirmed by IgM ELISA.	-	105 serum samples were taken for IgM ELISA (14 positive).	-	-	OIE-WAHIS (IN_151975)

Sheep and goat pox (SGP)

North Africa

Country	SGP Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Algeria	<p>In 2021 (ongoing) there were 196 outbreaks registered with 1,801 cases.</p> <p>34 outbreaks of sheep pox detected in sheep farms across 27 communes of the wilaya of Sidi Bel Abbes in December 2021, 191 animals were infected.</p> <p>144 cases of sheep pox were recorded since mid-October 2021 in >25 outbreaks across the wilaya of Ghardaia.</p> <p>30 sheep pox outbreaks were recorded in the state of Tissemsilt, reported in December 2021</p>	<p>-</p> <p>These outbreaks are the result of limited vaccination coverage since the cessation of the mass vaccination campaign in 2018</p>	<p>Preventive measures were taken by the local veterinary service.</p>	<p>Perifocal vaccination is applied when cases are declared. In 2021 - 939,717 SR were vaccinated.</p> <p>70 616 sheep were vaccinated across 351 farms in response to the outbreak.</p>	<p>-</p>	<p>Data shared by the country</p> <p>ProMED (Archive Number: 20211215.8700287)</p> <p>ProMED (Archive Number: 20211208.8700119)</p>

South East European Neighborhood (SEEN)

Country	SGP Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Azerbaijan	-	-	Passive surveillance	615,477 small ruminants were vaccinated in September- November 2021	-	Data shared by the country
Turkey	12 outbreaks reported.	-	Passive surveillance. In the Thrace region 12560 small ruminants were clinically examined for sheep and goat pox.	All small ruminants are vaccinated in Thrace, and vaccinated in response to outbreaks in Anatolia	-	Data shared by the country

Iraq	Outbreaks of SGP have been reported in sheep in districts of Anbar, Salah adeen, Dyala, Najef and Karkuk governorates, in October - December (288 cases)	-	-	-	-	Data shared by the country
Iran (Islamic Republic of Iran)	18 outbreaks of goat pox and 330 outbreaks of sheep pox	-	Passive surveillance	In this quarter, 5,596,485 sheep and 938,926 goats have been vaccinated against SGP using a risk-based approach, using locally produced vaccines with RM65 and Gorgan strains for sheep and goats respectively. Vaccination is free of charge and conducted risk-based and as a response to outbreaks.	Outbreaks are especially found in unvaccinated animals	Data shared by the country

Bovine ephemeral fever (BEF)

South East European Neighborhood (SEEN)

Country	BEF Outbreaks	Epidemiological information	Surveillance	Vaccination	Other risk information	Source
Iraq	Outbreaks of BEF have been reported in Babil, Deqar and Baghdadin, Karkuk, Dyala Waset, Anbar, Najef, Karbela and Seleheldeen (281 cases).	-	-	-	The presence of mosquitoes as a vector of the disease	Data shared by the country
Iran (Islamic Republic of Iran)	24 outbreaks of BEF were reported in this quarter.	-	Passive surveillance	10,817 cattle were vaccinated against BEF with an inactivated imported vaccine in a high-risk area.	-	Data shared by the country

Conclusions

Foot and mouth disease

Lineage O/ME-SA/PanAsia-2/ANT-10 continues to circulate in the Middle East, with outbreaks due to this lineage having been confirmed in Palestine and Jordan in November/December 2021. Type O/EA-3 was also reported in Palestine in December 2021. In the South East European neighbourhood, O/ME-SA/PanAsia-2 continues to circulate (reported in Turkey), with O/ME-SA/PanAsia-2/ANT-10 also reported. There were no reports of outbreaks due to other serotypes this quarter, however surveillance data needs to be improved in many countries. The collection of samples from outbreaks and their shipment to FAO/OIE Reference Laboratories is particularly important, so that phylogenetic and vaccine matching analysis can be performed. This can assist in providing evidence on the origin of the virus and on the efficacy of vaccines. There is a need to ensure that vaccines in use are protective against the correct circulating strains.

Peste des petits ruminants

Outbreaks were reported in Tunisia, Turkey (Anatolia), Iran and Iraq in this last quarter. In Iraq, no data was provided regarding vaccination, whilst Tunisia reported vaccination will soon be implemented, and Turkey reported both preventative and outbreak response vaccination.

Lumpy skin disease

No outbreaks were reported in the Middle East or North Africa regarding lumpy skin disease. Outbreaks were reported in Iraq and Iraq during this quarter, which did not report any data regarding vaccination. Vaccination was reported in Azerbaijan, Armenia, Turkey, and Georgia.

Rift Valley Fever

According to ProMED and OIE-WAHIS reports, outbreaks of Rift Valley fever were reported in Libya (serological findings) and Mauritania respectively.

Sheep and goat pox

Algeria, Turkey, Iran and Iraq reported outbreaks of sheep/goat pox this quarter. Both Turkey, Iran and Algeria report vaccination against sheep and goat pox to high animal numbers, with outbreaks more likely in unvaccinated animals. No vaccination data was provided by Iraq. Azerbaijan also reported vaccinating small ruminants against SGP.

Bovine ephemeral fever

Only Iraq and Iran reported outbreaks of BEF this quarter.



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