

GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES

Africa



Food and Agriculture
Organization of the
United Nations



World Organisation
for Animal Health
Founded as OIE



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CBPP

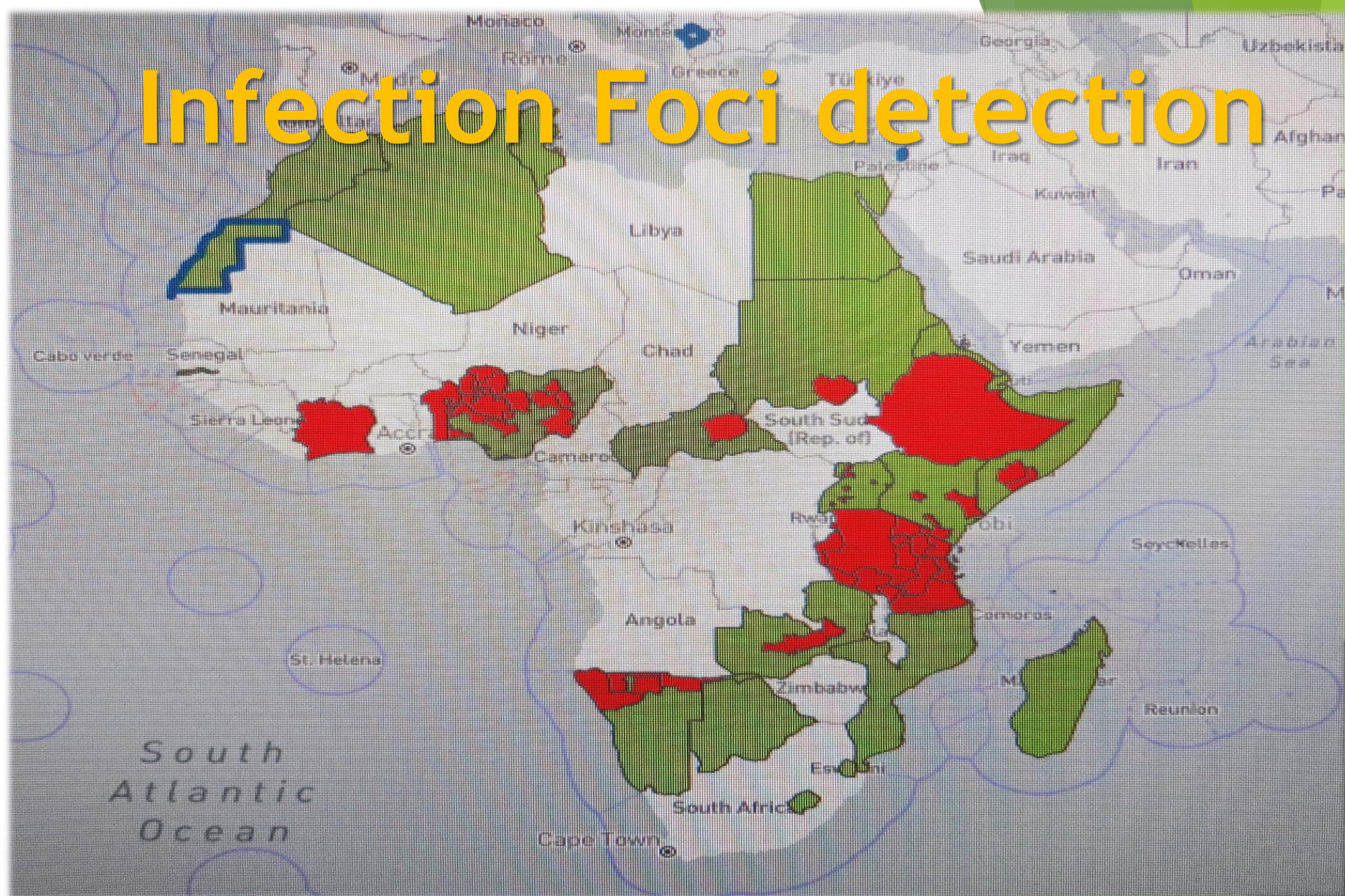
***INNOVATIVE TECHNOLOGIES TO
SUPPORT EVENT-BASED
SURVEILLANCE, E-REPORTING,
TELEDIAGNOSIS, ETC.***

M. Scacchia
CBPP WOAHP EXPERT

3rd meeting of SGE on CBPP of the GF-TADs for Africa
5-7 May 2025



Infection Foci detection



CBPP Infection **Foci detection**

**AU-IBAR emphasises CBPP control
policy concerning active surveillance
and information gathering for the
early detection of CBPP foci of
infection**



CBPP Infection Foci detection

How to identify foci of CBPP infection
in some African countries due to
economic issues, personnel shortages
and
political-military instability?



CBPP Infection Foci detection

How to identify foci of CBPP infection
in
African pastoral communities that often
live in areas that are difficult to reach?
And also with intense animal
movements, related to transhumance
and pastoralism?



CBPP Infection Foci detection

- Often African pastoral communities live at the borders of several nations
- In some cases in areas characterized by political and /or military instability



EVENTS BASED SURVEILLANCE OF CBPP: INNOVATIVE TECHNOLOGIES



Events based surveillance of CBPP: Innovative Technologies

*“Suspicion of CBPP related to
pathological lesions”*

- Abattoir surveillance: *Post-mortem* examination
- Field surveillance: Necropsy and/or slaughtering related to traditional ceremonies



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Events based surveillance of CBPP: Innovative Technologies

Identification of infection foci
involving state and private
Veterinarians, Animal Health
technicians and Meat Inspectors



Events based surveillance of CBPP: Innovative Technologies

But, identification of infection foci could involve also **trained** traditional leaders, breeders, local communities and eventually NGOs personnel, under VSs remote control



Events based surveillance of CBPP: Innovative Technologies

Considering these “new actors”
CBPP abattoir and field surveillance,
necessarily need, new approaches such as
Telediagnosis-Remote assistance
supported by local CBPP Experts or/and
WOAH/FAO Experts, involving VSs



WHAT IS VETERINARY TELEMEDICINE?



VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

VT/RVA is the use of digital and telecommunication technologies to provide and improve veterinary services in areas where distance, social and political instability and the incidence of disastrous natural events do not allow constant physical contact with Farmers, Veterinarians/Technicians and Experts



WHAT IS VETERINARY TELEMEDICINE?

Telemedicine services are assimilated
to any veterinary
diagnostic/therapeutic service.

It is also a tool for the exchange of
information between veterinarians and
technicians and between them and
farmers or local communities.



VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

VT/RVA is not the future, it is already the present!

The truth is that it is already provided, every phone call, @mail, WhatsApp, video call and photo transmission is part of VT/RVA .

But it definitely needs a standardisation.



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VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

Examples of VT/RVA include the use of platforms (e.g. Zoom), but especially Mobile Apps that allow a field veterinarian, veterinary technician and farmer to share with an expert data and observation of one or more sick animals or pathological lesions found, following a standardised *post-mortem* examination



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VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

Experts in the field of veterinary medicine, clinicians, nutritionists, diagnosticians and pathologists will be available to field veterinarians, technicians and breeders, through digital and telecommunication technologies to share, comment on data/photos deriving from disease outbreaks



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VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

Concerning CBPP,
what data are we talking about?



TELEMEDICINE DATA/ REMOTE VETERINARY ASSISTANCE

- Standardised forms concerning:
 - Veterinary visit to the farm;
 - Necropsy examination;
 - Collecting and sending samples to the Veterinary Diagnostic Laboratory



TELEMEDICINE DATA/ REMOTE VETERINARY ASSISTANCE

- Standardised videos: concerning clinical symptoms in sick animals, collected by mobile. But also video conferences between farmers and veterinarians or technicians
- Standardised photos: concerning pathological findings in sick animals, collected by mobile



TELEMEDICINE DATA/ REMOTE VETERINARY ASSISTANCE

- Audio: e.g. sounds produced by animals in particular pathological situations
- Georeferencing: when available



TELEMEDICINE DATA/ REMOTE VETERINARY ASSISTANCE

Information can be:

Static, which does not change over time
(text, images, etc.),

Dynamic, which changes over time (audio,
video, etc.) as a result of repeated visits to
the farm.

This approach is easy to implement for
traditional breeders and leaders.



TELEMEDICINE DATA/ REMOTE VETERINARY ASSISTANCE

The quality of the information transmitted
and received must be guaranteed,
standardising the way of collecting it, in
order to ensure the quality of the services
provided through VT/RVA



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VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

VT/RVA will be a tool for continuous professional training of veterinarians, health technicians, local communities, traditional leaders and breeders



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VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

Keep in mind that VT/RVA is a practice tool, not a separate discipline within the veterinary profession



***VETERINARY TELEMEDICINE/
REMOTE VETERINARY
ASSISTANCE:
TRAINING***



Mobile App: Training

This approach required online training on the most important diseases/TADs in the Region and how to collect standardised data concerning:

- Farm epidemiological data;
- Clinical visit and symptoms;
- Necropsy and Pathological lesions;
- Therapy;
- Organs photos and clinical symptoms videos, using mobile phone.



Mobile App: Training Courses

Training on how to use standardised forms related to:

- Veterinary visit to the farm;
- Necropsy examination and how to take biological material;
- Biosecurity;
- Sending material to the Veterinary Diagnostic Laboratory.



Mobile App: Training Courses

- **Standardised images**

Drawing up and sharing teaching material related to photo collection on:

- Veterinary visit to farm;
- Clinic visit;
- Necropsy examination;
- Procedure for taking biological material during necropsy.



Mobile App: Photos collection

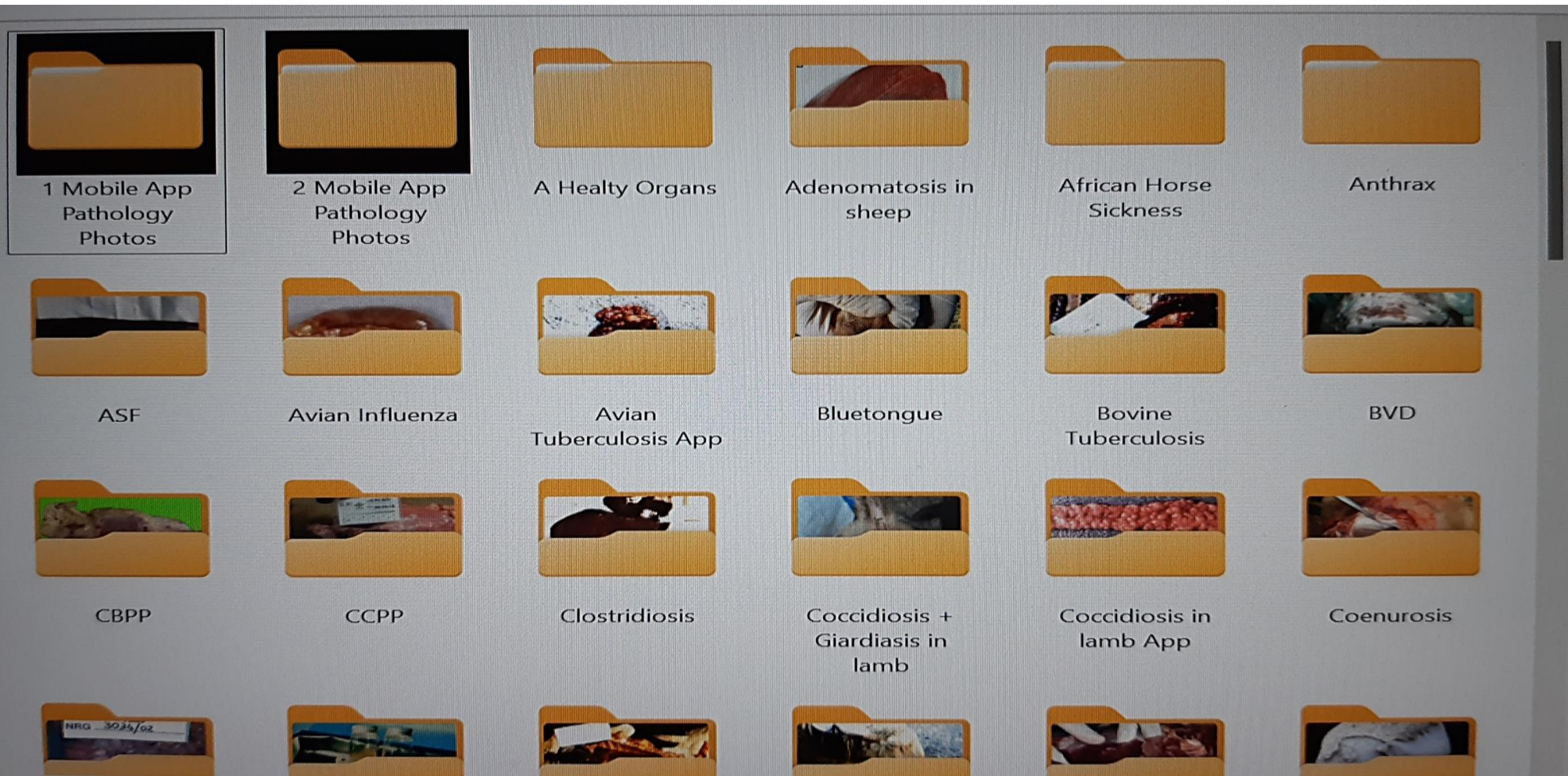
In addition, were provided to all the actors involved in this activity, via **Mobile App**:

Photos collections

- Characteristic lesions of the most important Pathologies for the Region
- Photos of Differential diagnosis lesions



Mobile App: Photos collection



***VETERINARY TELEMEDICINE/
REMOTE VETERINARY
ASSISTANCE:
ONE EXAMPLE OF
MOBILE APP***



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Veterinary Telemedicine/ Remote Veterinary Assistance: Mobile App

Photos and additional standardised information are send from the field and abattoirs, by local Veterinarians or Technicians to experts, via a specific Mobile App, for quick feedback



VETSYRIA

Dashboard

Cases

- Cases
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- Favorite Cases

Library

- Articles
- Favorite Articles

Farm Censuses

- Farm Censuses

Animals

- Animals
- Animal Properties

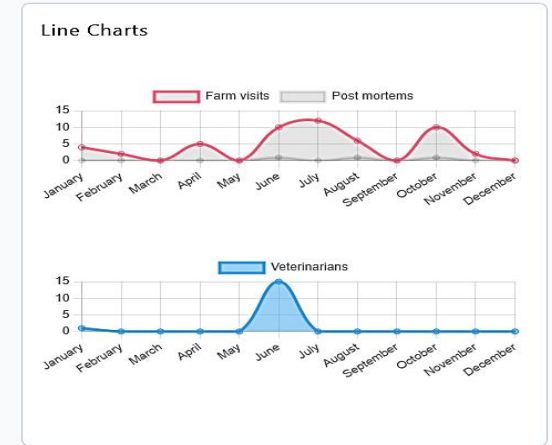
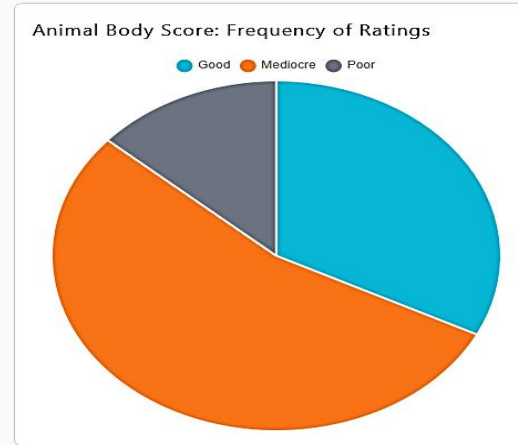
Pathologies

- Pathologies
- Pathology Properties

Settings

- Language Lines
- Terms and conditions

Powered by **ingenia**



Latest Cases

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استشارة وتشخيص
18/04/2025, 07:36

Cattle

بقرة اصببت بالحمى القلاعية وتم تقديم العلاج وتحسنت ولكن بعد يومين انتكست بشده واستدعاني المربي فكانت البقرة...ضعيفه جدا وانتفاخ في الوداجي وذهاب العزم وتم

استشارة طبية
14/04/2025, 21:00

Sheep

بثور جلدية تشكل طبقة بيضاء سميقة، التشخيص المناسب، والعلاج الأفضل من فضلكم

استشارة
09/04/2025, 23:57

Cattle

بقرة مضى على ولادتها ٧ اشهر ولم تدخل بدورة شبق بعد الولادة ابدأ تم فحصها وفحص المبايض فتبين وجود جسم اصفر اعطيت بروساغلندين اسم فيتامين

استشارة
09/04/2025, 15:08

Cattle

بقرة مضى على ولادتها ٢٠ يومشهيه ضعيفه وحراره ٤٠ بول مدمم يشبه القهوة او الشاي العامقدم منحل يشبه القهوةتم...تشخيصها على انها بيله هيموغلوبينه ونقص الفوسفورتم

استشارة
08/04/2025, 20:21

Cattle

حراره ٤٠ عرجتسلخات بالفم والاضلافسيلان لعابي

Latest Articles

[View all](#)

(Test Article) Marek's disease
11/06/2024, 10:10

Chicken Marek's disease

Introduction Marek's disease is a highly contagious viral disease primarily affecting chickens, characterized by the formation of tumors and paralysis. The causative agent, Gallid alphaherpesvirus...

(Test Article) Foot rot in sheep
11/06/2024, 10:10

Sheep Foot rot

Introduction Foot rot is a highly contagious bacterial infection affecting the hooves of sheep, leading to lameness, significant discomfort, and economic losses in the sheep...

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Cases

<div><div>+ New</div><div>Search</div></div>									
Object ↑↓	ID ↑↓	Type	Status ↑↓	Visibility ↑↓	Read ↑↓	Translated ↑↓	Latest update ↑↓	Created at ↑↓	
استشارة طبية	00010FV/25	Farm Visit	Pending	Visible			20/04/2025, 16:18	14/04/2025, 21:00	
استشارة	00007FV/25	Farm Visit	Pending	Visible			18/04/2025, 07:41	08/04/2025, 20:21	
استشارة وتشخيص	00011FV/25	Farm Visit	Pending	Visible			18/04/2025, 07:37	18/04/2025, 07:36	
استشارة	00008FV/25	Farm Visit	In progress	Visible			12/04/2025, 09:21	09/04/2025, 15:08	
استشارة	00009FV/25	Farm Visit	In progress	Visible			12/04/2025, 09:18	09/04/2025, 23:57	
استشارة	00004FV/25	Farm Visit	In progress	Visible			05/02/2025, 11:27	31/01/2025, 14:35	
استشارة حالة مرضية	00006FV/25	Farm Visit	In progress	Visible			05/02/2025, 11:25	02/02/2025, 21:36	
استشارة حالة مرضية	00005FV/25	Farm Visit	In progress	Visible			05/02/2025, 11:12	02/02/2025, 21:12	
طلب استشارة	00002FV/25	Farm Visit	In progress	Visible			30/01/2025, 11:52	10/01/2025, 19:29	
مشاركة الحالة مع الاطباء البيطريين	00003FV/25	Farm Visit	In progress	Visible			30/01/2025, 11:50	14/01/2025, 17:50	
Request a consultation from an experienced veterinarian	00001FV/25	Farm Visit	In progress	Visible			17/01/2025, 14:44	09/01/2025, 18:20	
استشارة	00038FV/24	Farm Visit	In progress	Visible			28/11/2024, 11:35	27/11/2024, 12:55	
تشخيص وعلاج	00037FV/24	Farm Visit	In progress	Visible			24/11/2024, 14:38	18/11/2024, 13:31	
استشارة	00034FV/24	Farm Visit	In progress	Visible			28/10/2024, 16:37	15/10/2024, 12:18	
الاستشارة والاستفادة من خبرة الدكتور والاخ الكبير ماسيمو	00036FV/24	Farm Visit	In progress	Visible			28/10/2024, 16:30	24/10/2024, 16:04	
مشاركة حالة عجول	00031FV/24	Farm Visit	In progress	Visible			28/10/2024, 16:20	09/10/2024, 12:44	
Request for medical consultation from scientific and field experience	00033FV/24	Farm Visit	Closed	Visible			27/10/2024, 07:42	10/10/2024, 08:46	
Request medical advice from those with scientific and field experience	00035FV/24	Farm Visit	In progress	Visible			21/10/2024, 16:00	18/10/2024, 19:32	
استشارة حول علاج التهاب قناة فالوب عند الأبقار	00032FV/24	Farm Visit	In progress	Visible			11/10/2024, 17:10	09/10/2024, 13:30	
Pulmonary fibrosis	00001PM/24	Post Mortem	Pending	Hidden			10/10/2024, 08:34	01/08/2024, 17:14	
<div><div><<</div><div><</div><div>1</div><div>2</div><div>3</div><div>></div><div>>></div><div>20</div><div>⌵</div></div>									



Latest Cases

[View all](#)

Request veterinary consultation

19/06/2024, 15:04

 Sheep

.Dear veterinary experts.A herd of sheep numbering 100 heads.The injured 25 heads.Skin symptoms that start small and expand, and the skin becomes hard and thick.I...

The milk curdles

19/06/2024, 12:31

 Goat

Dear Veterinary ExpertsGreetingsI would like to consult you on a medical caseA goat has a normal temperature and appetite, the color of the milk is...

Latest Articles

[View all](#)

Marek's disease

11/06/2024, 10:10

 Chicken  Marek's disease

Introduction Marek's disease is a highly contagious viral disease primarily affecting chickens, characterized by the formation of tumors and paralysis. The causative agent, Gallid alphaherpesvirus...

Foot rot in sheep

11/06/2024, 10:10

 Sheep  Foot rot

Introduction Foot rot is a highly contagious bacterial infection affecting the hooves of sheep, leading to lameness, significant discomfort, and economic losses in the sheep...



Scacchia Massimo
m.scacchia@izs.it



My fellow doctors, male and female veterinarians, I would like to obtain your professional and field expertise in the case of persistent estrus in a...

Seeking advice about a case of an acute diarrhea in a young calf


18/06/2024, 10:46

 Cattle

Dear veterinary experts, I am asking about the possibility of controlling a case of severe diarrhea in a three-month-old calf. The diarrhea is yellow

Request veterinary advice about a complex case

17/06/2024, 17:04

 Sheep

Hello, my fellow doctors, male and female veterinarians. I am asking for your help in a case that affects young sheep between the ages of...

Request veterinary consultation



19/06/2024, 15:04



Original

English

Italian

Arabic

.Dear veterinary experts
.A herd of sheep numbering 100 heads
.The injured 25 heads
.Skin symptoms that start small and expand, and the skin becomes hard and thick
.I have injected her several times with ivermectin as well as infusions with external fluids
.....But it's no use

Mobile App

Type

Farm Visit

Farm Owner



Address



Visit date

2024-06-01

Visit number



15:08

🔖A

Original English Italian Arabic

Please Help



أفات جلدية (1)

80 KB



أفات جلدية (3)

73 KB

Status

Closed



Mobile App

SM

Scacchia Massimo

m.scacchia@izs.it

+ Comment

SM

Scacchia Massimo

14:18

🔖A

Original English Italian Arabic

Dear friend, I think it is Dermatophilosis caused by Dermatophilus congolensis.

Dermatophilosis is initially characterised by the presence of small corneous swellings on the epidermis, which, with the time, evolve into more or less confluent crusty formations consisting of epithelial cells and exudate that conglutinates the wool. Such crusts, often tenaciously

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*Mobile App:
Photos*



VETERINARY TELEMEDICINE: CBPP AND ANTIBIOTICS



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ANTIBIOTICS AND CBPP: TANZANIA STUDY



Antibiotics and CBPP: Tanzanian experience

The results from the 400 interviews show that Tylosin is the most commonly used antibiotic by 286 (84.87%), followed by Oxytetracycline 47 (14.39%) and Enrofloxacin 3 (0.89%)

346 (86.50%) knows about CBPP, while 41 (10.25%) never sought professional advice, and 347 (86.75%) used antibiotics to treat CBPP



Antibiotics and CBPP: Tanzanian experience

122 (34%) of cattle keepers practice self-treatment to cattle, 77(20.98%) do not complete the dosage, and 103 (28.06%) do not follow the withdrawal period

Cattle keepers 261 (65.74%) do not know about AMR



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ILRI
INTERNATIONAL
LIVESTOCK RESEARCH
INSTITUTE



ANTIBIOTICS AND CBPP: KENYA STUDY



Kenya outbreak investigation: CBPP treatment

Antibiotics used

- Farm 1 (Kajiado) _ PenStrep, Oxytetracycline (10%, 20%, & 30%), Dexamethasone
_ Tylosin administered by the CDVS which stopped the deaths
- Farm 2 (Kajiado) _ Betamox, Oxytetracycline 10% and later 30%
- Farm 3 (Kajiado) _ PenStrep, Oxytetracycline, Diaminazene Diacetate, Metaphos
(phosphorus and Vit B12 supplement), and Butaphos
_ Dewormers
- Farm 4 (Marsabit) _ Oxytetracycline 10%, 5%
- Farm 5 (Laikipia) _ Oxytetracycline, Butalex, Multivitamin, Dexamethasone
- Farm 6 (Isiolo) _ PenStrep, Antihistamine, multivitamin and, Tylosin

- The overall herd mortality rate for CBPP was estimated to be 30%
- CBPP causes high economic losses to farmers through the purchase of drugs and loss of animals
- **Self-treatment by farmers is common**, at times the vets may inject the first dose and leave drugs with the farmers to continue with subsequent injections
- One ranch in Laikipia sourced Tulathromycin to successfully treat CBPP



Drugs used by farmers for CBPP



According WOAHPVS, use of antibiotics is OUT OF VETERINARY CONTROL in a large number of African countries!!!!

Source: Emile Singano, TVLA-Tanzania



Antibiotics

Antibiotic treatments, given the problems related to residues in meat and milk and AMR, have to be carried out under the

Direct control or using VT/RVA, of Veterinarians or Animal Health Technicians,

Traditional leaders or farmers must be properly trained by VSs



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VETERINARY TELEMEDICINE/ REMOTE VETERINARY ASSISTANCE

- **Therapy**

The purpose of this service is for a veterinarian to define the therapy, following a suspected diagnosis, and to give clear information to farmers, on the drug to be used, the dosages, the duration of therapy, drug storage and above all the withdrawal times in milk and meat.



TECHNOLOGICAL NEEDS



TECHNOLOGICAL NEEDS

Field Vets and Technicians

- Mobile phones or tablets
- Telephone connection
- @mail, if possible
- Offices with electricity and Internet connection

Telemedicine/Tele-assistance Secretariat

- Internet connection



Internet access in Africa

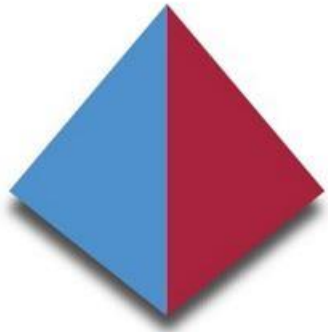
Country	Percentage
Algeria	90.7%
Egypt	72.2%
Libya	88.4%
Tunisia	72.9%
Morocco	67.1%
Senegal	72.1%
Gambia	60%
Sierra Leone	54.2%
Liberia	31.6%
Ivory Coast	33.9%
Ghana	30.4%
Upper Volta	30.1%
Niger	16.9%
Chad	19.9%
Cameroon	38.4%
Cote d'Ivoire	33.8%
Guinea	37.6%
Sierra Leone	69%
Liberia	45.5%
Upper Volta	43.9%
Niger	10.6%
Chad	22.5%
Cameroon	28.7%
Cote d'Ivoire	12.1%
Guinea	19.4%
Sierra Leone	22.7%
Liberia	26.6%
Egypt	65%
Sudan	27%
Ethiopia	40.8%
Somalia	27.2%
Kenya	34.4%
Uganda	11.3%
Rwanda	27%
Burundi	31.9%
Tanzania	27.3%
Malawi	23.2%
Mozambique	20.6%
Swaziland	32.6%
Botswana	39.3%
South Africa	62.2%
Namibia	77.3%
Angola	58.3%
Guinea-Bissau	47%
Senegal	74.7%
Sierra Leone	73.7%
Liberia	36.2%
Upper Volta	66.8%
Niger	57%
Chad	79.6%
Algeria	86.7%
Morocco	75.5%

<https://www.reddit.com>

Thank you!

m.scacchia@izs.it





GF-TADs

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PROGRESSIVE CONTROL OF
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Africa



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