

The Epidemiological Situation of CBPP in Mauritania - July 2022 - Lusaka - Zambia

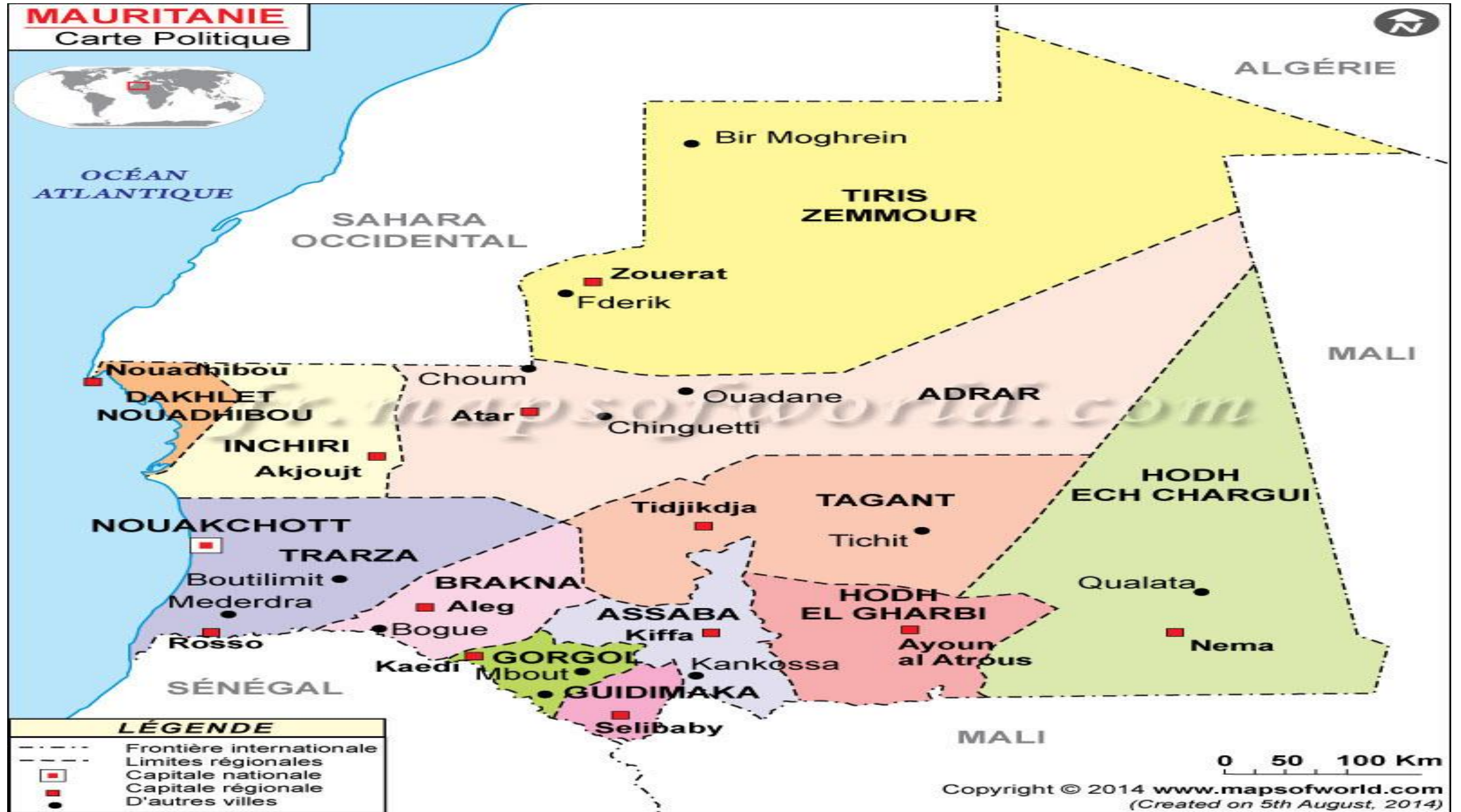
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Pastoralism (ONARDEP)

Plan

- **Introduction**
- **Objectives**
- **Materials And Methods**
- **Results**
- **Conclusion**

Introduction :



Introduction

- The National Office for Research and Development in Livestock and Management of Pastoralism (ONARDEP) is a public institution with an administrative and scientific vocation.
- It includes 4 structures:
- Animal Health & Food Hygiene Department
- Animal Production and Genetic Improvement Department
- Mauritanian Center for Development and Camel Breeding
- Breeding Techniques Demonstration Center)

Introduction

- CBPP is a contagious, infectious, inoculable disease caused by a mycoplasma (bacterium), *Mycoplasma mycoides*, subsp *mycoides* SC, affecting cattle and water buffaloes
- (OIE Manual: 2008)

Introduction

Due to its economic importance:

- **this disease is part of the list A of priority diseases for compulsory reporting in the world as defined by the World Organization for Animal Health (WAHO)**
- **Direct or indirect losses attributable to CBPP would amount to 2 billion Dollars \$ for the African continent (Masiga et al. 1998);**
- **only Africa is currently affected**

Introduction

The epidemiology of CBPP in African countries can be summarized as follows:

- -Cattle and buffaloes are the only species affected naturally.**
- -There is no wild reservoir for CBPP.**
- -CBPP transmission requires direct contact.**
- - Livestock movements are primarily responsible for maintaining and spreading the disease.**

objectives

- **Main objective :**

- Describe the situation of CBPP in Mauritania;

- **Specifics Objectives :**

1. Give an Appreciation on the Epidemiological Situation of CBPP in Mauritania
2. Give an appreciation on the diagnostic techniques of CBPP at the level of ONARDEP
3. Report the Main Difficulties especially related to the Operationally of Diagnostic Techniques

Materials and Methods

- **Type of study:**

Descriptive cross-sectional study with retrospective collection of data on suspected CBPP samples received by ONARDEP from 2015 to 2021

- **Study population:**

all suspected CBPP samples received by ONARDEP from January 1- 2015 to December 31, 2021

Materials and Methods

Data collected from:

- **the laboratory register**
- **Sample Sheets**
- **the various electronic databases of each year individually of the period considered**

Materials and Methods

Data management and analysis:

- **compiling**
- **Comparison**
- **Cleaning the database of all outliers**
- **Data was entered and analyzed using Microsoft Word and Excel 2016 software**

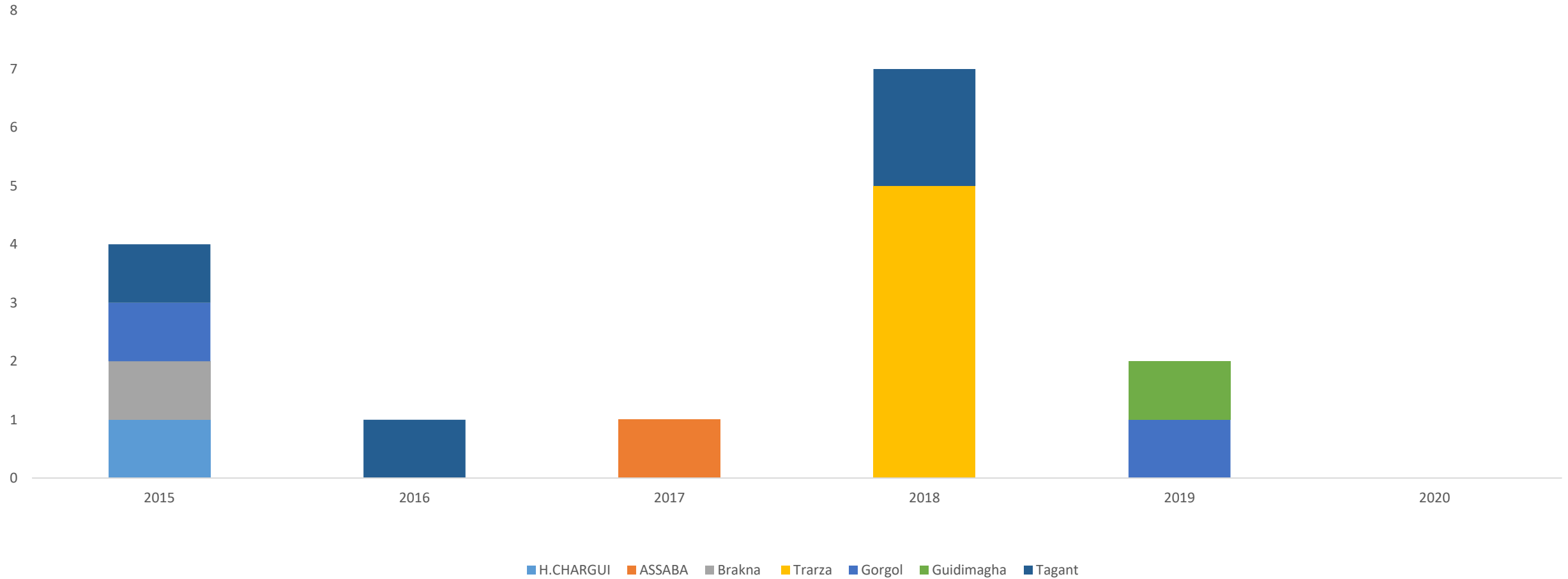
Results

We recorded between 2015 and 2021 in the ONARDEP database in Mauritania:

- **each year one or more outbreaks are registered**
- **15 Outbreaks throughout Mauritania during 7 years**
- **7 /15 Wilayas (Region) only affected**
- **2020, 2021 , no outbreaks were recorded;**
- **The peaks are in 2018 with 7 outbreaks (Figure N°: 1)**

Results

Figure N ° 1 : Distrubution of Outbreaks by Region and by Years

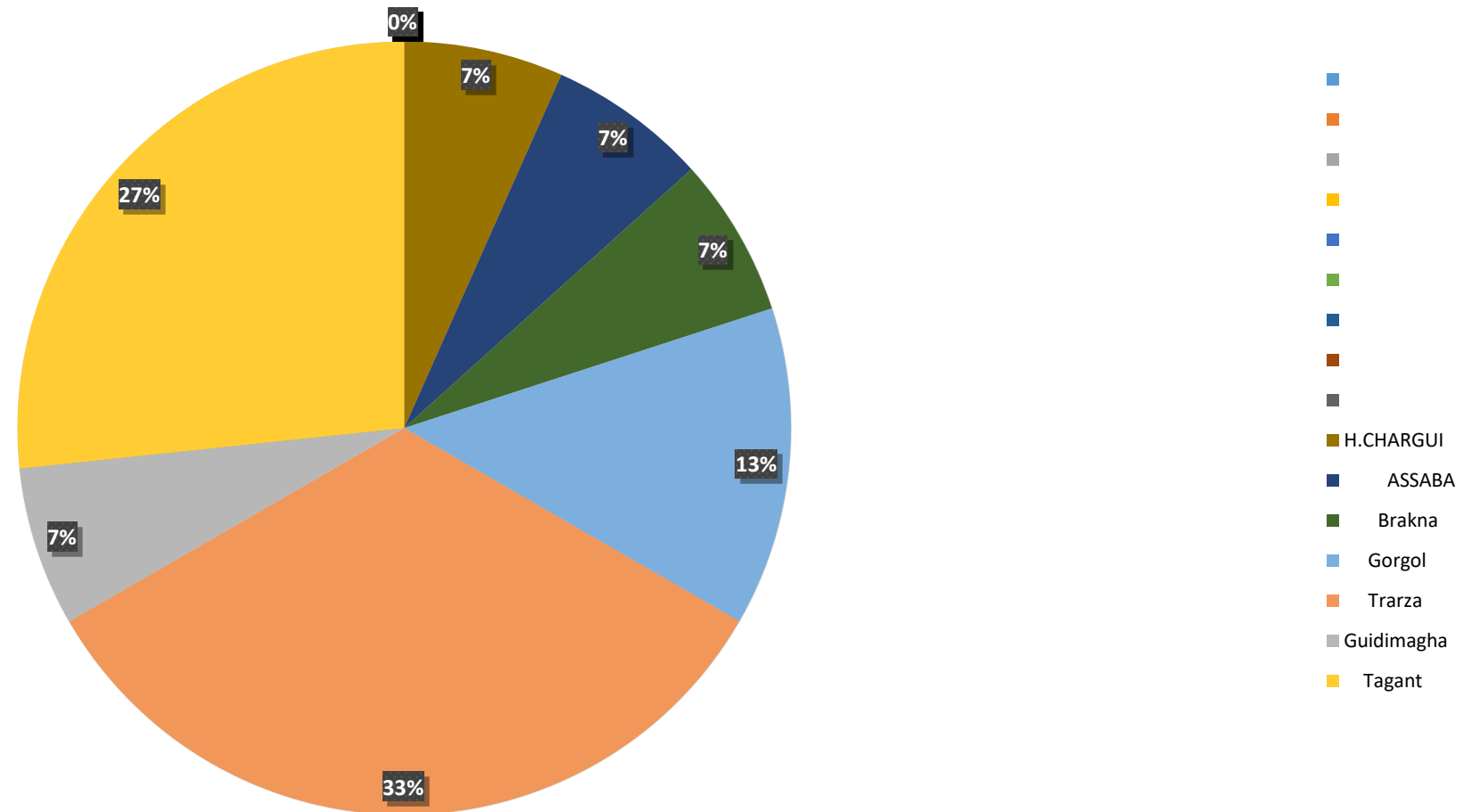


Results

- **Over 7 years:**
- The Wilayas of Trarza and Tagant recorded the highest number of outbreaks with respectively (5 outbreaks: 33.33%) and (4 outbreaks: 26.66%) of the total outbreaks;
- The Wilayas of: H.Chargui; Assaba; Brakna; Guidimagha (respectively) registered only (one outbreak: 7%): during all these 7 years;
- Gorgol recorded (2 outbreaks: 27%);
- the other Wilayas of Mauritania have not recorded any outbreaks

Results

Figure N° : 2 Répartition des Foyers de la PPCB sur les Wilayas



Results

- (13 outbreaks: 86, 66%) of suspected outbreaks received at the ONARDEP laboratories were found to be positive
- (2 outbreaks 13.34%) only unconfirmed is of the order of and respectively)

Result

- **For 7 years:**
- **The ONARDEP laboratory database received 935 bovine sera (cases) in 15 Outbreaks :**
- **(161:17%): Positive serum**
- **(774: 83%): Serum Negative**

Results

Usual diagnostic techniques for CBPP in ONARDEP Laboratory :

1- Mainly the Elisa Technique: routine technique

- **Opportunities :**

- **Thousands of analyzes Each year; especially during Seromonitoring Surveys: T0; T1; and T2**

- **Mastered by Our Laboratory technicians;**

- **Constraints:**

- **Sometimes reagents out of stock;**

Results

2- Bacteriological diagnosis:

- is always problematic; especially because of the rarity of clinical outbreak ;
- **Opportunities :**
 - Almost all the necessary hardware is in place;
 - Basic Training exists;
- **Difficulties :**
 - Basic culture medium and especially the Supplement;
 - CO2 incubator and especially CO2.
 - Lack of Reagents and Consumables
 - Training update and sample materials;

Results

3- Molecular Biology Diagnosis:

is always problematic; especially because of the rarity of clinical Outbreaks ;

- **Opportunities :**

- The BIOMOL unit is in place and operational;
- Basic Training exists;

- **Difficulties :**

- No Specific Primers; Reagents and Consumables;
- BIOMOL CBPP Diagnosis Training Update;
- Sample materials;

Conclusion

- **Epidemiological situation of CBPP in Mauritania:**
- No new outbreaks since 2020;
- Subacute forms are difficult to detect (Slaughterhouse; Seromonitoring)
- Mauritania is still endemic for CBPP;
- **Laboratory Techniques used at ONARDEP:**
 - the Elisa Technique: Routine Technique – Efficient
 - Bacteriological diagnosis; and Molecular Biology Diagnosis; need to be Improved, (the units are operational) but Reagents and Consumables to be reinforced
 - Laboratories of ONARDEP need to be accompanied





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