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THE QUARTERLY ANIMAL HEALTH EPI-LAB BULLETIN

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THE QUARTERLY ANIMAL HEALTH EPI-LAB BULLETIN

Dear Reader,

Welcome to the first issue of the quarterly Animal Health Epi-Lab Bulletin.

This bulletin is intended to provide a quarterly animal and zoonotic disease situation update to all stakeholders at district, national and international levels, as well as promote data utilization, information sharing and feedback mechanisms across sectors.

In this issue, a general overview of the animal disease events reported to MAAIF between January – March, 2022 is provided as well as a summary of reporting status by districts and cities in Uganda.

INTRODUCTION

Livestock production constitutes an important subsector of Uganda's agriculture. Fifty-eight percent of households depend on livestock for their livelihoods. A major constraint to improving production and productivity of livestock is the presence of animal diseases, including zoonotic and other infectious diseases. To reduce the impact of these diseases, effective and efficient mechanisms for preparedness, detection and response to disease outbreaks are required. The Department of Animal Health in the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) has a core function of undertaking surveillance, outbreak investigation, diagnosis and reporting of animal diseases in the country. Efforts have been made by the Ministry to establish an efficient and effective animal health surveillance system in the country however, early detection and timely reporting of animal diseases from the field are still a challenge. This could be attributed to inadequate human resources, training, incentives and weak infrastructure. MAAIF is however dedicated to ensuring effective and quality animal health surveillance and reporting is undertaken so as to generate evidence crucial in understanding the disease situation, preventing probable disease outbreaks and supporting decision making.

What Is Presented In This Bulletin?

This bulletin focuses on the status of animal disease reporting by the districts in quarter 1, based majorly on passive surveillance and Event based Mobile Application reporting. It also provides brief highlights of disease situation based on laboratory confirmations. For each section of the bulletin, a brief introduction, key findings, challenges and proposed interventions aimed at improving animal and zoonotic disease reporting nationally are provided.

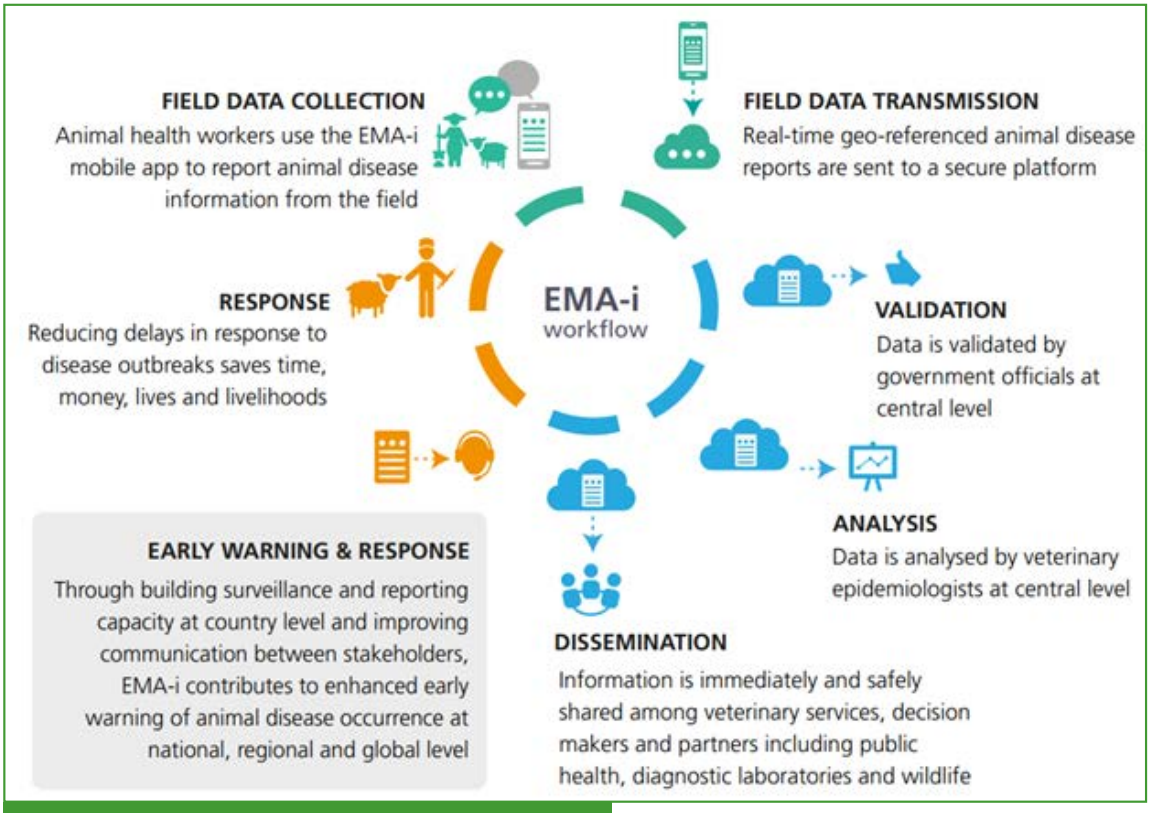
1. EVENT MOBILE APPLICATION (EMA-i) REPORTING

EMA-i is a tool that was developed by the Food and Agriculture Organization (FAO) to support data collection, and to facilitate real-time disease reporting from the field to MAAIF.

In the first phase of implementation (January 2013 to July 2014) ten districts, with a total of 15 users were targeted. In its second phase, from July 2014 to December 2015, the tool expanded to 10 districts more, and an additional number of 33 users were added. To date, FAO has supported about 80 % of districts in enhancing the national animal disease reporting system through the Event Mobile Application (EMA-i).

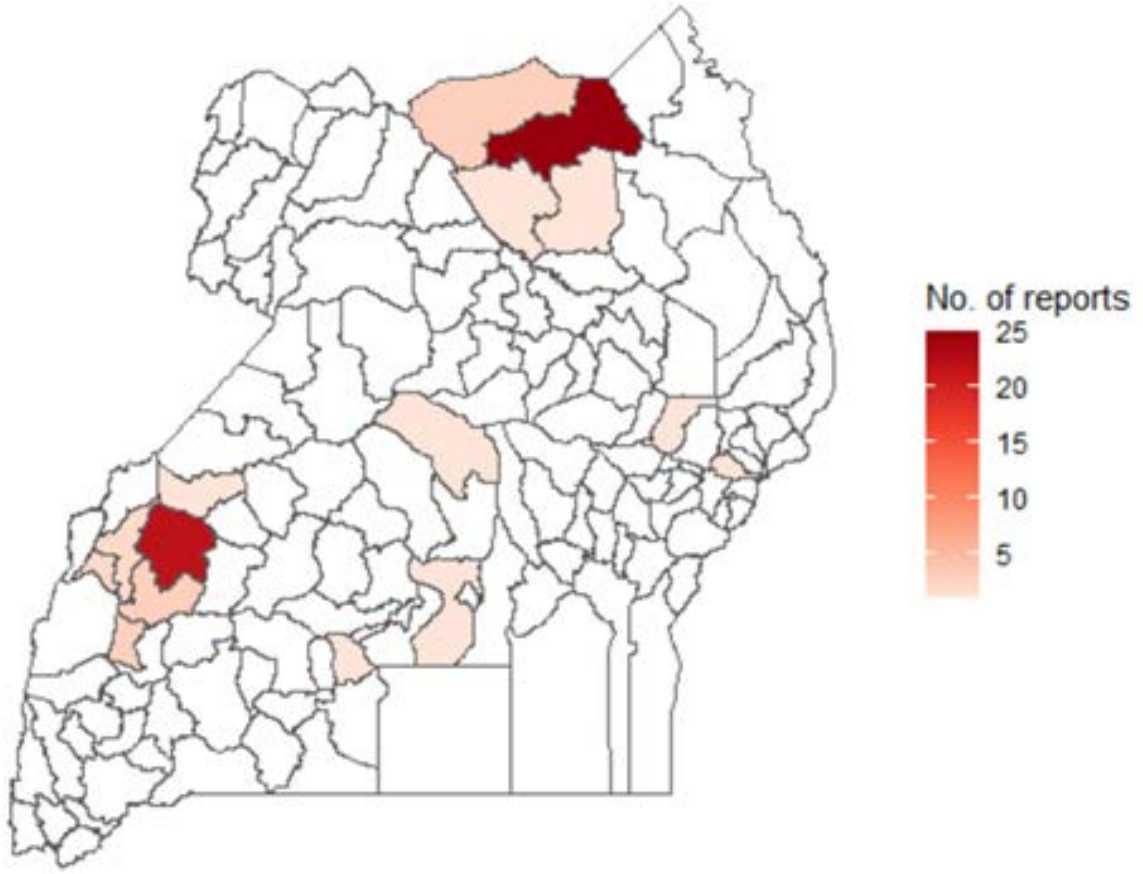
This tool enables frontline animal health officers to collect and transmit real-time geo-referenced information on animal diseases from the field using smartphones and tablets. With this technology, reports are sent in real-time to the Global Animal Disease Information System (EMPRES-i), a database developed by FAO where the information is safely stored and processed for country use. The data are verified and validated, and the submitter of the information can be contacted if necessary. These field reports are also accessible through a mapping component of the EMA-i application, which allows users to visualize the location of disease events including epidemiological details. The disease event reports are also sent and shared in real-time with decisions makers to improve communication/ coordination between local actors (veterinary services, animal health workers and laboratory experts).

EMA-i Work Flow From Field Data Collection To Response



Source: Food and Agriculture Organization

Figure 1: **Districts Reporting Disease Events Using EMA-i**



Kitgum	25	Kyenjojo	22	Kamwenge	3	Lamwo	3	Kabarole	2	Agago	1	Wakiso	1
Kalungu	1	Kibaale	1	Kumi	1	Nakasongola	1	Pader	1	Sironko	1		

Key Highlights:

01 — 13 **(9%)** **Districts** out of 146 reported disease events using EMA-i

02 — A total of **62 animal disease events** were reported through EMA-I, **ECF** being the most frequently reported disease event **(26%)** followed by **Helminthiasis (11%),** and **Bovine Anaplasmosis (10%).**

03 — The major TADs reported included **ASF, FMD, LSD and NCD. 35 (57%)** of the disease events were received in January, **18 (29%)** in February and 9 **(14%)** in March.

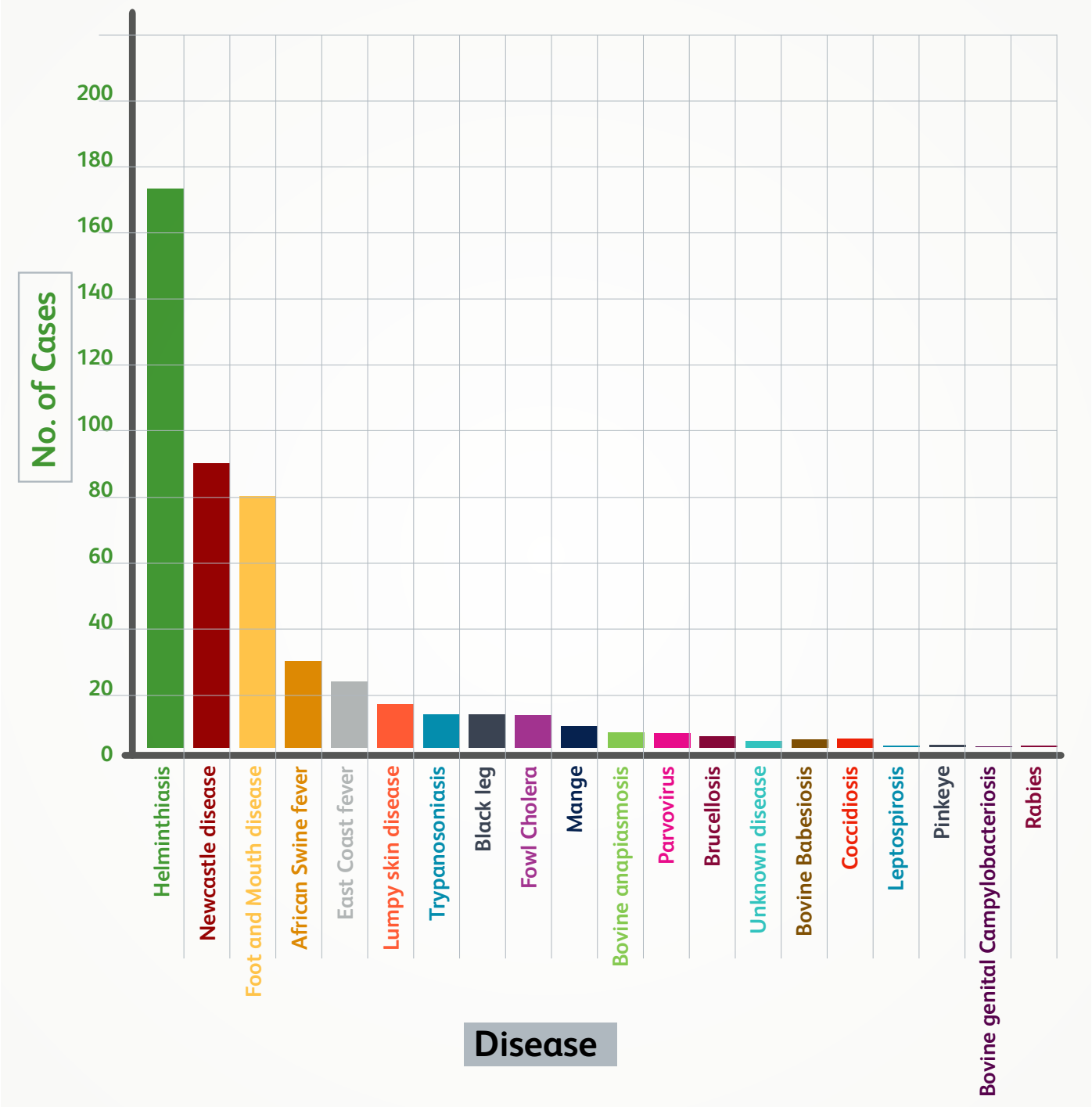
04 — 68% of the disease events were reported in **Cattle,** followed by dogs, chicken, swine, goats and sheep respectively.

05 — Disease events of Public Health significance: **Brucellosis in** Kitgum, **Trypanosomiasis** in Kabarole, and **Rabies** in Lamwo Districts.

06 — The disease/condition with the highest number of cases reported across districts that submitted EMA-i reports was **Helminthiasis (37%).**

ECF East Coast Fever, TADs Transboundary Animal Diseases, ASF African Swine Fever, FMD Foot and Mouth Disease, NCD New Castle Disease, LSD Lumpy Skin Disease

Figure 2: **Ema-I Disease Events Reported In Quarter 1**



Discussion Points

EMA-i has been able to strengthen early warning of animal disease occurrence at the national level. However, the number of districts utilizing EMA-i for reporting is still extremely low that's less than 10 % of the districts in Uganda.

This could be due to;

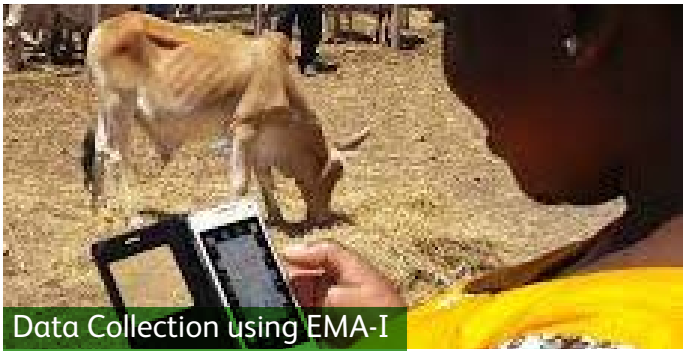
- The animal health work force in the field required to identify and report these disease is currently inadequate.
- Insufficient knowledge and training on use of EMA-i among the practitioners as a real time disease reporting tool.
- No incentives to motivate disease reporting

Through the EMA-i application, a rapid, real-time, efficient and confidential communication channel is guaranteed, allowing for more immediate and effective response during a disease outbreak hence the need to support country wide use of this application so as to enhance national capacities in disease reporting, surveillance and early warning.

Many of the reporting districts are within the cattle corridor hence keep majorly cattle for their livelihoods which could explain Cattle being the most affected livestock species.

The highest number of cases reported were Helminths.

Reports of diseases zoonotic in nature call for establishment of data sharing mechanisms and continued surveillance and reporting of these diseases using approaches (One Health) to protect public health. These could act as early warning signs for potential outbreaks in humans.


Data Collection using EMA-I

Proposed Recommendations

- Need for training, technical backstopping of district staff, and scale out of the application to enhance its use for real time reporting of animal and zoonotic disease events.
- Provide Incentives for disease reporting as well as regular follow up of districts
- Conduct further investigation and or research on the prevalence of tick resistance in those areas as well as sensitization of farmers on prevention of ticks using integrated tick control approaches including appropriate use of acaricides.
- Develop a policy on use of acaricides to reduce tick resistance .
- There is need for continued sensitization of farmers on good animal husbandry practices such as regular deworming.
- Need to build human resource capacity of animal health practioners in epidemio-survellience and disease reporting so as to improve the quality of the data collected.
- Establish mechanisms for intergrated surveillance of especially zoonotic diseases and information sharing across all stake holders.
- Improve involvement of the private sector in disease surveillance and reporting.


Ankole cattle in Uganda

2. PASSIVE SURVEILLANCE MONTHLY REPORTING

Passive surveillance is a cost-effective form of surveillance compared to active surveillance. A non-negligible disadvantage however is the potential for under-reporting and therefore failure to provide reliable information on the actual disease status of a population. Passive surveillance is utilized in form of routine monthly reports of animal disease occurrence in the districts. These reports are compiled by the District Veterinary Officers (DVO) and submitted to the Chief Veterinary Officer (CVO). These are uploaded onto a Microsoft Access database at the National Animal Disease Diagnostic and Epidemiology Centre (NADDEC), Epidemiology Unit for analysis and dissemination through CVO to the relevant stakeholders.

Table 1: Quarter 1 Passive Surveillance Monthly Reporting, 2022

DISTRICT	MONTH			DISTRICT	Month (Jan - Mar)	DISTRICT	Month (Jan - Mar)	DISTRICT	Month (Jan - Mar	DISTRICT	Month (Jan - Mar
	Jan	Feb	Mar								
Amudat				Amuria		Kakumiro		Luweero		Pallisa	
Buhweju				Amuru		Kalaki		Lwengo		Rubanda	
Bulambuli				Apac		Kalangala		Lyantonde		Rubirizi	
Buliisa				Arua		Kaliro		Madi-Okollo		Rukiga	
Butaleja				Budaka		Kalungu		Maracha		Serere	
Hoima				Bududa		Kamuli		Masaka		Sheema	
Ibanda				Bugiri		Kanungu		Masindi		Sironko	
Isingiro				Bugweri		Kapchorwa		Mbarara		Soroti	
Kamwenge				Buikwe		Kapelebyong		Mitooma		Ssembabule	
Kiboga				Bukedea		Karenga		Mityana		Terego	
Kiruhura				Bukomansimbi		Kasese		Moyo		Tororo	
Koboko				Bukwo		Kassanda		Mpigi		Wakiso	
Kween				Buliisa		Katakwi		Mubende		Yumbe	
Kyenjojo				Bundibugyo		Kayunga		Mukono		Zombo	
Lira				Bunyangabu		Kazo		Nakaseke		**Kampala**	
Manafwa				Bushenyi		Kibuku		Nakasongola			
Mayuge				Busia		Kikuube		Namayingo			
Mbale				Butambala		Kiryandongo		Namisindwa			
Moroto				Butebo		Kisoro		Namutumba			
Nabilatuk				Buvuma		Kitagwenda		Napak			
Nakapiripirit				Dokolo		Kitgum		Nebbi			
Oyam				Gomba		Kole		Ngora			
Rakai				Gulu		Kotido		Ntoroko			
Rukungiri				Iganga		Kumi		Ntungamo			
Rwampara				Jinja		Kwania		Nwoya			
Abim				Kaabong		Kyankwanzi		Obongi			
Adjumani				Kabale		Kyegegwa		Omoro			
Agago				Kabarole		Kyotera		Otuke			
Alebtong				Kaberamaido		Lamwo		Pader			
Amolatar				Kagadi		Luuka		Pakwach			

Key

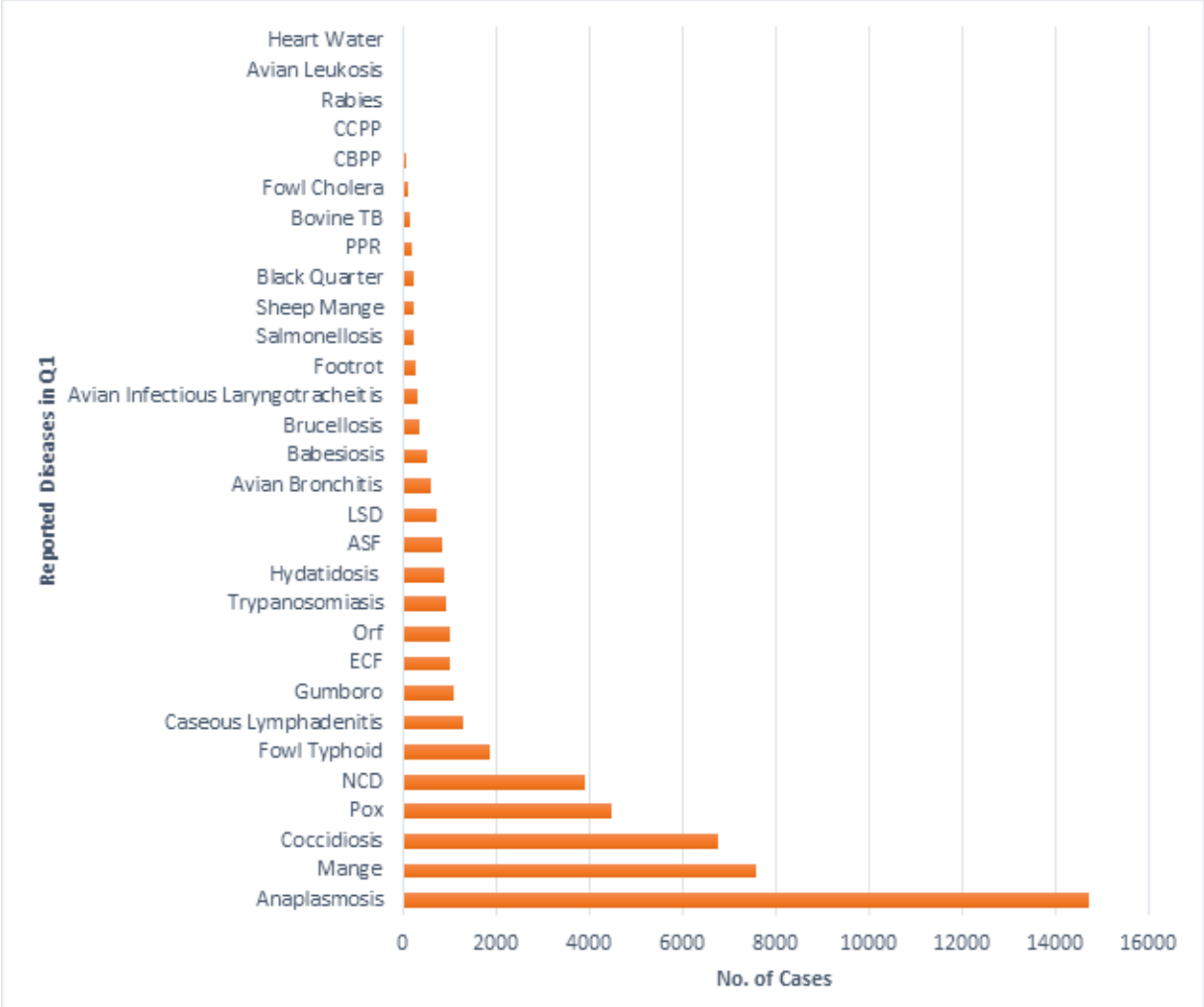
No Report submitted	Report submitted on time
Report submitted late	

*National target for monthly reporting is 80%

Key Highlights:

- **25 (17%)** out of 146 districts submitted atleast one (1) report.
- **84%** of the reports were received on time (by 15th of the next month)
- The disease with the highest number of recorded cases from districts that submitted reports was **Anaplasmosis**.
- With the national target of 80% reporting, **37 (10.5%)** out of the 351 expected reports were received this quarter.
- Only **one district (Koboko)** out of the 146 districts submitted all 3 reports.

Figure 3: Disease Reports Recorded in Q1, 2022



Discussion Points

Districts are required to report disease occurrence passively on a monthly basis however as per our finding only 17 % of the districts submitted at least one report during this quarter. This under reporting undermines efforts to address animal and zoonotic diseases due to the lack of evidence to inform decision makers.

Disaggregated by livestock species, commonly recorded diseases include:

Poultry - Coccidiosis, Fowl Typhoid, Infectious Laryngotracheitis, NCD, Pox.
Cattle - Anaplasmosis, Foot rot, Black Quarter.
Goats - Orf, Contagious Caprine Pleuro Pneumonia (CCPP), Brucellosis, Peste des Petits Ruminants (PPR).

Key to note is majority of the diseases reported are based on clinical manifestations rather than laboratory confirmed diagnosis. **(Annex 2)**

MAAIF has introduced a weekly disease reporting form to ensure regular disease reporting/ updates from the district. **(Annex 3)**

Records from monthly and EMA-i reports confirm a high prevalence of TBDs as one of the major disease challenges affecting Cattle in Uganda.

Proposed Recommendations

There is need to establish mechanisms to improve disease reporting from the field including quality of the reports submitted (completeness and timeliness).

There is need to establish the extent and magnitude; as well as socio-economic impact of these animal diseases and Tick Resistance to acaricides in Uganda to guide decision making on possible interventions.


Example of goats reared in Uganda


Free range chicken feeding

3. LABORATORY REPORTS

The NADDEC laboratory which also falls under the Directorate of Animal Resources, Department of Animal Health, Division of Diagnostics and Epidemiology of MAAIF, undertakes disease diagnosis, surveillance and confirmation of disease outbreaks. This section highlights the different districts; and samples that have been submitted for disease confirmation at the Central Veterinary Laboratory (NADDEC) during quarter 1, 2022.

Table 2: Sample Submission Received For Different Diseases at NADDEC

DISEASE	JAN	FEB	MAR	TOTAL TESTED	TOTAL POSITIVE
Brucellosis	319	304	432	1055	69
CBPP	298	189	218	705	33
PPR	6	182	26	214	134
CCPP	6	108	20	134	0
FMD	0	86	2	88	15
AI&NCD	0	0	8	8	0
ASF	0	4	0	4	0
Rabies	0	0	1	1	1
TOTAL	**629**	**873**	**707**	**2209**	**252**

PPR Peste des Petits Ruminants , CCPP Contagious Caprine Pleuro Pneumonia, FMD Foot and Mouth Disease, AI Avian Influenza, ECF East Coast Fever, ASF African Swine Fever.

Key Highlights

- The laboratory received **a total of 2209 samples** from different districts during the period of January to March, 2022 as shown in the table below.
- Samples submitted included serum, whole blood, and tissue
- **98%** of the samples submitted were sera samples.
- The most common diseases investigated were; Brucellosis (48%), and Contagious Bovine Pleuro Pneumonia, CBPP (32%). Other diseases included Peste des Petitis ruminants, PPR (10%), Contagious Caprine Pleuro Pneumonia, CCPP (6%), Foot and Mouth Diseases, FMD (4%), Avian Influenza and New Castle Disease (0.4%), African Swine Fever, ASF (0.2%), and lastly Rabies (0.04%).
- The highest number of samples were received from Central (46%), Western (27%), Northern (22%) and Eastern (5%) regions. In Central region, a total of 12 districts submitted samples with most of the samples coming from Wakiso, Gomba and Sembabule. In Western, a total of 10 districts submitted samples, with most samples sent from Bushenyi, Kagadi, Ibanda and Kiruhura having most samples. For Northern, a total of 5 districts submitted samples with most samples originating from Arua and Madi-Okollo disticts. Only one district from Eastern Uganda submitted samples that's Kamuli district.

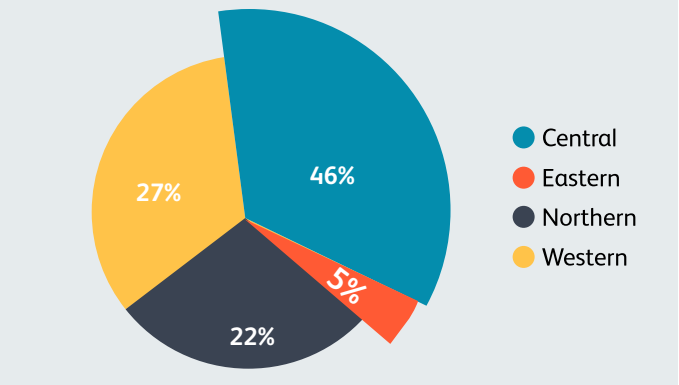
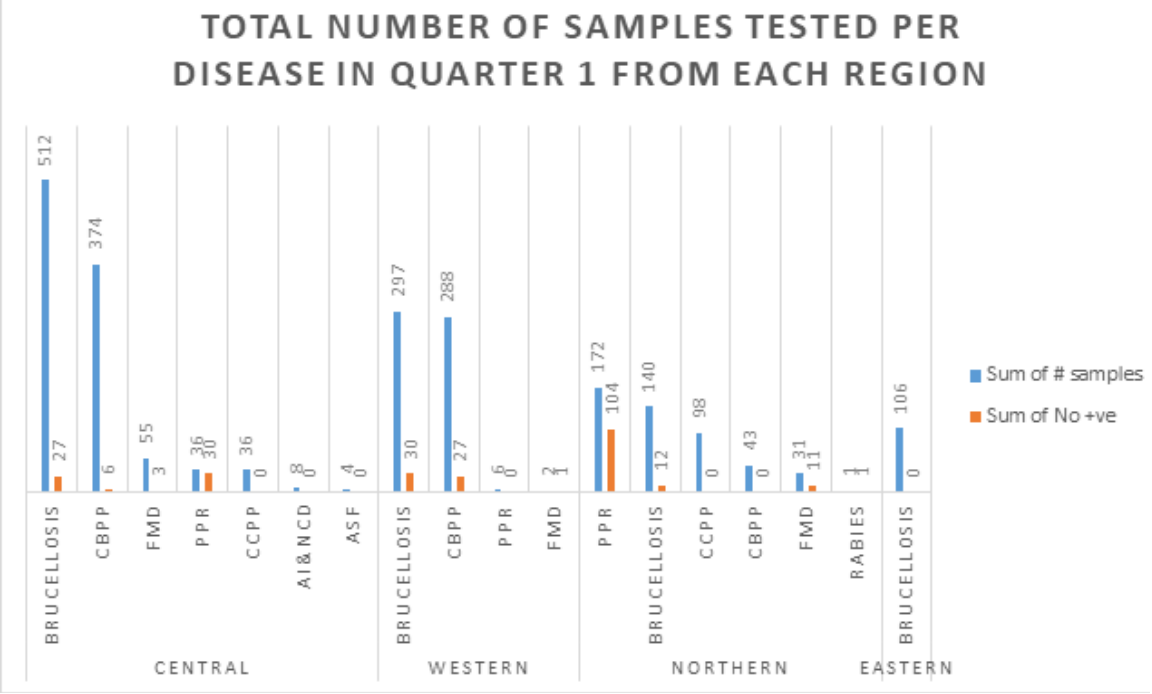


Figure 5: Number Of Samples Tested Per Disease And Region In Quarter 1



PRIORITY ZOONOTIC DISEASES

Zoonotic diseases are among the most frequent and dreaded risks to which humankind is exposed. Approximately 70 % of emerging diseases originate from animals. These are disease that spread between animals and humans, threatening not only their health but the national economic stability as well through bans on trade in livestock and livestock products, animal movement and loss of tourism. The unique biological diversity and escalating population growth in Uganda, resulting into increased interactions at the human, animal and environment interface contribute to the emergence and spread of these diseases. The priority zoonotic diseases identified for Uganda include anthrax, zoonotic influenza viruses, viral hemorrhagic fevers, brucellosis, Trypanosomiasis (African Sleeping Sickness), Plague, and Rabies.

1. RABIES

Eight districts reported suspected rabies cases in dogs, using the routine monthly reports.

The districts include;
Lira(17), Manafwa (5), Kiru hura (18) Butalegya (3) Hoima (5), Mbale (3) Isingiro (5) and Rakai (57). Only one (1) tissue sample from a suspected rabid dog in Moyo district was submitted for Rabies confirmation. The sample tested positive for Rabies.


Dogs playing along the street

2. BRUCELLOSIS

NADDEC received 1,055 samples for Brucellosis confirmation. 47 %, 34 % and 19 % of the samples were from cattle, pigs and goats respectively. Confirmatory diagnosis was done using ELISA. None of the porcine samples tested positive for Brucellosis across all regions. High sero-positivity rates were recorded mainly in goats (table 4).

Table 3 Brucellosis Disease Diagnostic Testing Status In Quarter 1

Region	District	Species	Sum of # samples	Sum of No +ve	Positivity rate (%)
Central	Buikwe	Porcine	40	0	0
	Bukomansimbi	Bovine	4	0	0
	Gomba	Bovine	130	19	14.6
	Kampala	Bovine	12	0	0
	Kayunga	Porcine	51	0	0
	Luweero	Caprine	53	5	9.4
	Nakaseke	Bovine	5	1	20
	Nakaseke	Caprine	4	2	50
	Sembabule	Bovine	49	0	0
	Wakiso	Porcine	164	0	0
	Sub Total		**512**	**27**	
Western	Bushenyi	Bovine	145	3	2.1
	Ibanda	Bovine	48	0	0
	Kazo	Bovine	2	0	0
	Kiruhura	Bovine	39	2	5.1
	Masindi	Caprine	9	3	33.3
	Ntungamo	Bovine	25	21	84
	Sheema	Bovine	29	1	3.4
	Sub Total		**297**	**30**	
Eastern	Kamuli	Porcine	106	0	0
	Sub Total		**106**	**0**	
Northern	Arua	Caprine	73	12	16.4
	Madi Okollo	Caprine	60	0	0
	Moyo	Bovine	7	0	0
	Sub Total		**140**	**12**	

TRADE SENSITIVE DISEASES

These diseases are regarded as a highly trade-sensitive issue and pose a potential serious threat to Uganda's international trading status.

1. CONTAGIOUS BOVINE PLEURO PNEUMONIA (CBPP)

A total of 705 samples were received at NADDEC for confirmation. CBPP is a public good disease and listed among the notifiable diseases that must be reported to national authorities and global level (World Organization for Animal Health). Confirmatory diagnosis was done using ELISA. No samples were received from Eastern region for CBPP testing. The highest positivity rate (9.4 %) was observed in Western region, particularly Sheema district.

Table 4 CBPP Disease diagnostic testing status in Quarter 1

Region	District	Sum of # samples	Sum of No +ve	Positivity rate (%)
Central	Gomba	124	2	1.6
	Kampala	12	0	0
	Nakaseke	5	0	0
	Nakasongola	41	0	0
	Sembabule	60	4	6.7
	Wakiso	132	0	0
	Sub-Total	**374**	**6**	**1.6**
Western	Bushenyi	170	13	7.6
	Ibanda	48	0	0
	Kazo	2	0	0
	Kiruhura	39	4	10.3
	Sheema	29	10	34.5
	Sub-Total	**288**	**27**	**9.4**
Northern	Amuru	43	0	0
	Sub-Total	**43**	**0**	**0**

2. PESTE DES PETITS RUMINANTS (PPR)

A PPR outbreak is an emergency due to its rapid spread and high animal mortality rate. It considerably affects export earnings and creates supply shortages.

ELISA tests were done to confirm PPR in sera samples that were submitted. High positivity rates (>80 %) were recorded in Kiboga district, Central region and Arua district, in Northern region.

Table 5 Ppr Disease Diagnostic Testing Status In Quarter 1

Region	District	Sum of # samples	Sum of No +ve	Positivity rate (%)
Central	Kiboga	36	30	83.3
	Mubende	6	0	0
Northern	Arua	90	75	83.3
	Madi Okollo	82	29	35.4
Western	Hoima	6	0	0
	Total	**214**	**134**	**62.6**

3. FOOT - AND - MOUTH DISEASE (FMD)

Foot and Mouth Disease (FMD) is the most serious socio-economic disease affecting production, productivity and market access for the livestock sector in Uganda. FMD is endemic in Uganda since 1953, with frequent outbreaks occurring across many districts. Eight (8) districts reported FMD outbreaks during quarter 1.

FMD Outbreaks Reported During Quarter 1.

Region	District				
Northern	Kween	Adjumani			
Western	Ntungamo				
Central	Sembabule	Nakasongola	Mpigi	Kalungu	Kyotera

Sera samples submitted for Ntoroko district were to facilitate lifting of quarantine restrictions previously imposed on the district due to a prior outbreak. Samples from Ntungamo and Sembabule were obtained for disease outbreak investigations.

Table 6 FMD Disease Diagnostic Testing Status In Quarter 1

Region	District	Sum of # samples	Sum of No +ve	Positivity rate (%)
Northern	Ntoroko	31	11	35.5
Western	Ntungamo	2	1	50
Central	Sembabule	55	3	5.5
	Total	**88**	**15**	**17.0**

4. AFRICAN SWINE FEVER (ASF)

African Swine Fever (ASF) is endemic in Uganda and considered a major constraint to pig production. NADDEC received a total of four (4) samples from Gomba district for confirmation of ASF.

A sow breastfeeding her piglets

Discussion Points

The samples submitted to the laboratory were majorly for confirmation of Brucellosis, CBPP as result of suspected outbreaks of those diseases in areas that submitted samples. Brucellosis and Rabies are among the priority zoonotic diseases that were listed by the Government of Uganda. Since many zoonotic agents cause symptomatic disease in a number of host animal species, or are detectable by serology, PCR, or other diagnostic methods, it seems logical that the detection of a zoonotic disease infection in an animal could provide sentinel warning to humans.

Areas with high positivity rates need more testing to be conducted as the number of confirmed cases is likely to represent only a small fraction of the true number of infections. Extremely high positivity rates could possibly be an indication of an extremely low number of tests conducted for a particular area rather than a high number of infections as is observed in some districts.

Active regional and district veterinary laboratories across the country support the NADDEC in disease diagnosis. However, due to low resource capacities for both personnel and equipment (including reagents and other consumables) at these laboratories, many samples are referred to the central laboratory for disease confirmation. Most of the samples received are from central region which could be as a result of proximity (access) among other things as compared to other regions.

Proposed Recommendations

This calls for integrated surveillance and reporting of disease events including zoonotic diseases; and establishing mechanisms of information sharing among stakeholders to facilitate early warning, detection and response.

To facilitate timely confirmation of outbreaks and promotion of diagnostic stewardship, there is need to build infrastructural and human resource capacity at the regional and district laboratories.

Annex 1: Disease Events reported on EMA-i (January-March)

Disease	Agago	Kabarole	Kalungu	Kamwenge	Kibaale	Kitgum	Kumi	Kyenjojo	Lamwo	Nakasongola	Pader	Sironko	Wakiso	Total
African Swine Fever							1	1						2
Blackleg	1					3								4
Bovine anaplasmosis						4		1	1					6
Bovine babesiosis				1				1						2
Bovine genital campylobacteriosis						1								1
Brucellosis						1								1
Coccidiosis				1									1	2
East Coast Fever				1		6		9						16
Foot and mouth disease			1						1					2
Fowl cholera								1						1
Helminthiasis		1				1		5						7
Infectious Bovine Keratoconjunctivitis (Pinkeye)						1								1
Leptospirosis						1								1
Lumpy skin disease								1				1		2
Mange								2						2
Newcastle disease					1	2				1				4
Parvovirus						4								4
Rabies									1					1
Trypanosomosis (tsetse-transmitted)		1												1
Unknown disease						1					1			2
Total	1	2	1	3	1	25	1	21	3	1	1	1	1	62

Annex 2: Disease occurrence recorded by monthly surveillance reports (January-March)

District/Diseases	Sum of Cases	District/Diseases	Sum of Cases	District/Diseases	Sum of Cases	District/Diseases	Sum of Cases
Amudat	191	**Ibanda**	**75**	Kyenjojo	237	Footrot	6
Bovine TB	140	CCPP	4	Coccidiosis	100	Fowl Cholera	95
Hydatidosis	1	ECF	6	ECF	54	Fowl Typhoid	277
Pox	50	LSD	15	Footrot	3	Gumboro	323
Buhweju	31	Pox	30	Pox	80	Mange	57
Anaplasmosis	5	PPR	20	**Lira**	**7364**	NCD	453
ASF	7	**Isingiro**	**1308**	Anaplasmosis	41	Pox	345
Babesiosis	3	Anaplasmosis	83	ASF	668	Trypanosomiasis	7
ECF	12	Babesiosis	68	Avian Bronchitis	45	Moroto	863
Footrot	3	Brucellosis	135	Avian Leukosis	1	Hydatidosis	859
Orf	1	ECF	201	Babesiosis	44	Orf	4
Bulambuli	**435**	Footrot	216	Bovine TB	2	Nabilatuk	150
Anaplasmosis	9	LSD	454	Coccidiosis	5029	PPR	150
Avian Bronchitis	8	Mange	151	ECF	25	**Nakapiripirit**	**309**
Babesiosis	9	**Kiboga**	**23711**	Footrot	2	Anaplasmosis	22
Brucellosis	1	Anaplasmosis	14000	Fowl Cholera	3	Babesiosis	43
Caseous Lymphadenitis	1	Black Quarter	218	Fowl Typhoid	253	Bovine TB	1
ECF	21	Brucellosis	58	Gumboro	118	Brucellosis	5
Footrot	21	Caseous Lymphadenitis	1301	Mange	2	CBPP	53
Fowl Cholera	20	Coccidiosis	1100	NCD	810	CCPP	8
Fowl Typhoid	25	Fowl Typhoid	194	Pox	160	ECF	23
Hydatidosis	1	Mange	6000	Rabies	3	Hydatidosis	17
Mange	175	Orf	540	Trypanosomiasis	158	LSD	63
Rabies	1	Sheep Mange	100	**Manafwa**	**1650**	Mange	23
Salmonellosis	143	Trypanosomiasis	200	Anaplasmosis	467	Orf	17
Buliisa	269	**Koboko**	**6095**	ASF	178	PPR	24
ECF	33	Anaplasmosis	60	Babesiosis	9	Trypanosomiasis	10
LSD	12	Avian Bronchitis	468	ECF	157	Grand Total	50,397
Mange	138	Avian Infectious Laryngotracheitis	210	Heart Water			
Pox	86	Babesiosis	294	LSD	176		
Butaleja	**5285**	Brucellosis	141	Mange	209		
Fowl Typhoid	1123	CBPP	1	Orf	45		
Gumboro	350	ECF	465	Sheep Mange	17		
Mange	123	Gumboro	279	Trypanosomiasis	392		
NCD	575	Mange	718	**Mbale**	**2399**		
Orf	14	NCD	2070	Anaplasmosis	37		
Pox	3100	Orf	387	Avian Bronchitis	70		
Hoima	**25**	Pox	639	Avian Infectious Laryngotracheitis	120		
Brucellosis	12	Salmonellosis	105	Babesiosis	34		
Orf	13	Sheep Mange	110	Coccidiosis	550		
		Trypanosomiasis	148	ECF	25		

MINISTRY OF AGRICULTURE, ANIMAL INDUSTRY AND FISHERIES WEEKLY DISEASE REPORTING FORM

ANIMAL							METHOD	TIME				PLACE	
Species or Type	Class	Total No. at risk	No. Sick	No. Dead	Diseases Suspected (S) of confirmed (C)	Details (Age, Breed, Sex, etc.)	Active (A) or Passive (P)	Date of visit	Date symp-toms first observed	Date of first death	Date of laboratory submis-sion	Sub Local Name	GPS co-ordinates Lat. /Long
Cattle	Dairy												
	Beef												
	Dual Purpose												
	Breeder												
Sheep	Meat												
	Milk												
	Dual Purpose												
	Breeder												
Goats	Meat												
	Milk												
	Dual Purpose												
	Breeder												
Poultry	Meat												
	Eggs												
	Dual Purpose												
	Breeder												
Equine	Horse												
	Donkey												
	Mule												
	Other												
Pets	Dog												
	Cat												
	Other												
Wildlife	Specify												

Summary of key notifiable diseases this week

Disease	Current Month:			Cumulative: Month :		
	Cases	Deaths	Case Fatality Rate	Cases	Deaths	Case Fatality Rate

All Districts should submit their weekly and monthly reports to the Epidemiology unit through Email: **epireports@gmail.com**

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Your Feedback is valuable to us