

Piloting mobile syndromic disease surveillance in abattoirs in Uganda: Challenges and prospects

Innocent Obilil¹, Denis Mugizi¹, Kristina Roesel¹, Clovice Kankya², Rita Papoula Pereira³, Elizabeth Cook¹

¹International Livestock Research Institute, Uganda/Kenya; ²Makerere University, Uganda; ³University of Liverpool

22 September 2022

Introduction

- Livestock disease control requires a multifaceted approach integrating data from host, agent and the environment.
- As such, records play a pivotal role in disease surveillance.
- Abattoirs are key sources of data on livestock diseases basing on antemortem and post-mortem findings.
- Abattoir data provides clue on
 - Diseases of public health importance
 - Diseases of economic importance
 - Compliance with legislation on drug residues
 - Animal welfare
- Accuracy and timeliness of recorded data is key.
- Paper based disease surveillance systems are dogged with a lot of challenges ranging from bulkiness, slow and poor retrieval of data.
- We are piloting an electronic mobile syndromic surveillance system as an alternative model of collection, storage and retrieval of data on livestock diseases at abattoirs.
- This will help in timely collection, processing and sharing of information for timely intervention

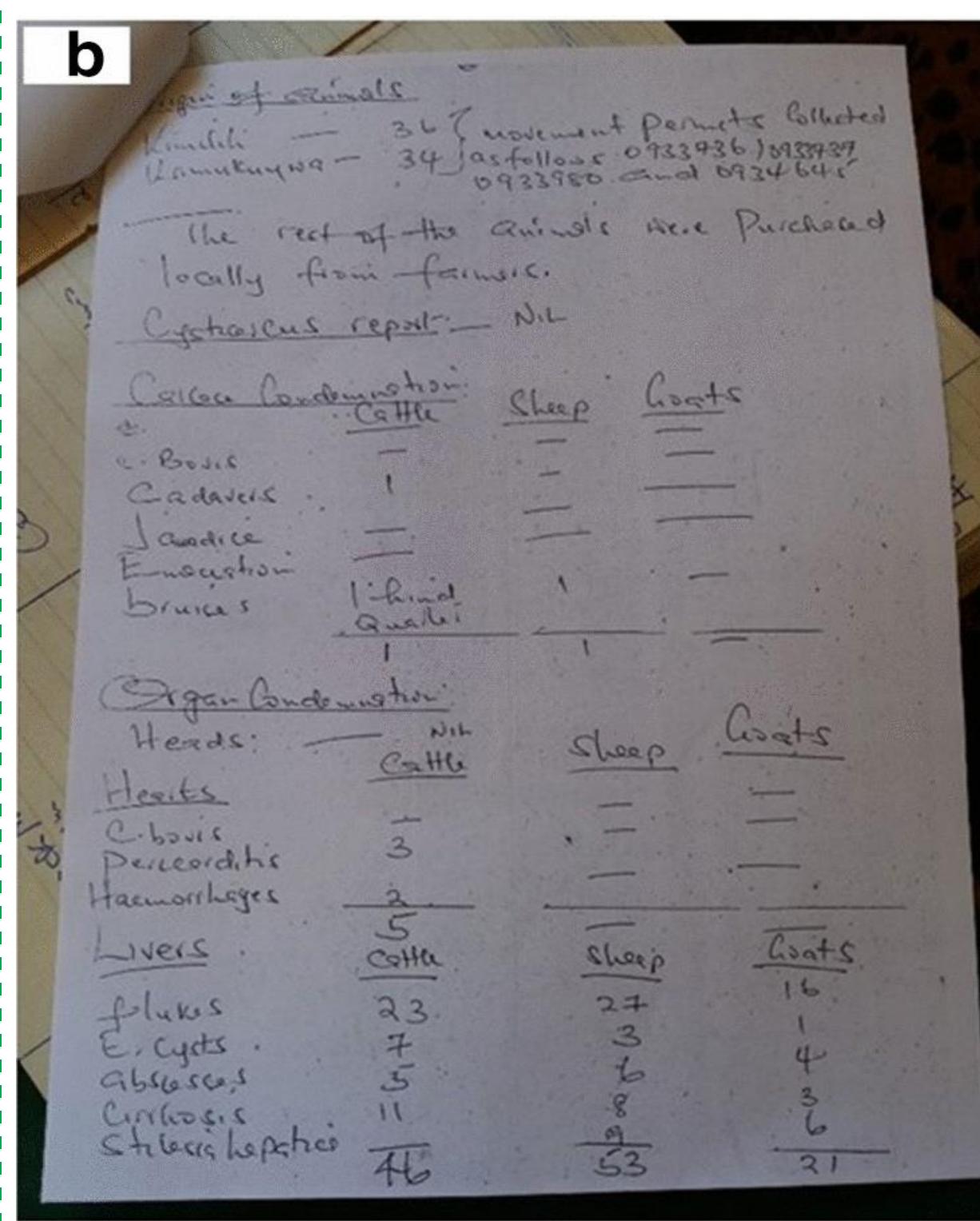


Objectives

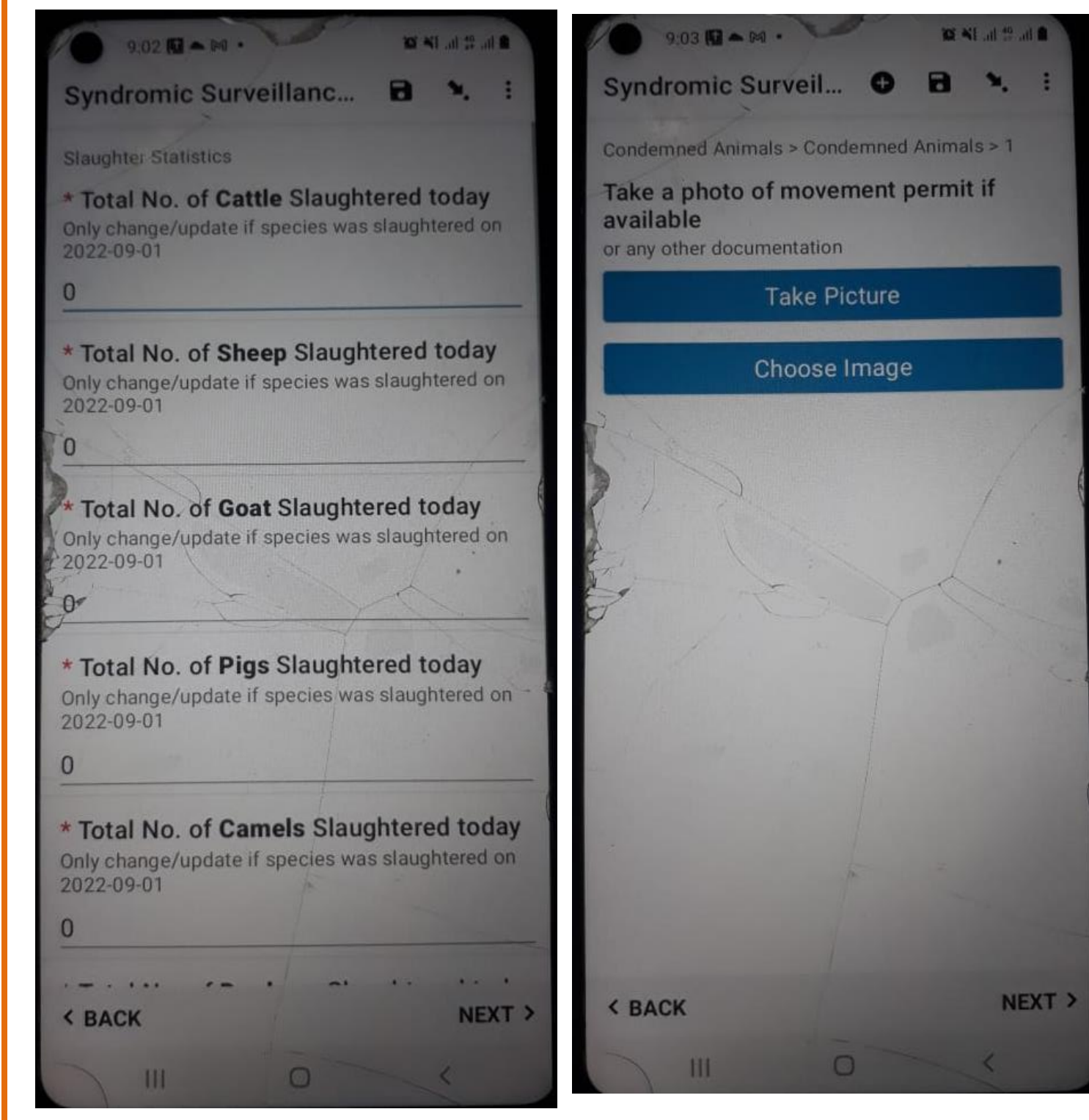
- ① To develop capacity in electronic syndromic disease surveillance
- ② To establish a disease data base in slaughter animals in Uganda
- ③ To develop capacity in meat inspection

Methodology:

Manual Data Collection



Digitizing Surveillance Tools



Training/Retooling/ Equipping Meat Inspectors

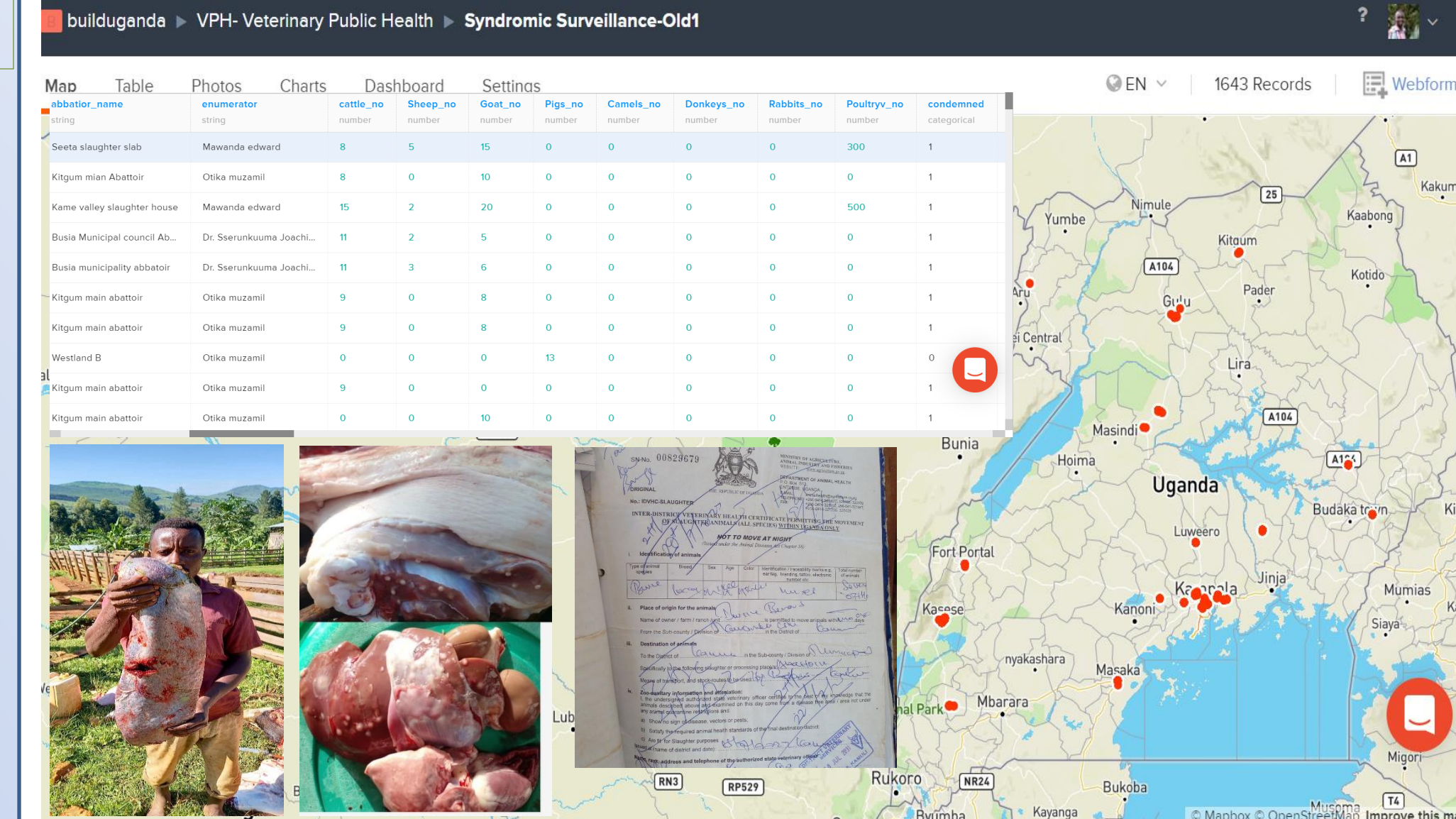
40 Phones Purchased/
Data Bundles



- Training Focus**
- Meat hygiene and food safety
 - Meat inspection regulations and standards
 - Digital syndromic surveillance (DSS)

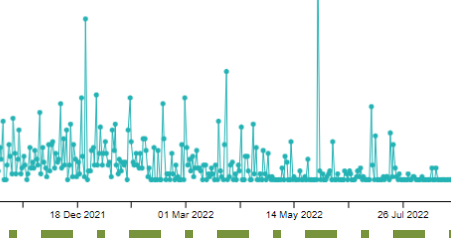
Surveillance Data Management- ODK Server

<https://ona.ilri.org/builduganda>



Reporting Quick Statistics

- 2326 submissions sent to the server
- 19/40 districts have submitted >20 records



Condemned Status		
Totally	Partially	Clean
196	1914	216
8.4%	82.2%	9.3%

Totally Condemned (196)

Cause	%	Districts
Septicaemia	4.1	Kiryandongo, Wakiso, Kampala
Imperfect bleeding	15	Kamuli, Mityana, Kampala, Wakiso, Mukono
Emaciation	2	Kiryandongo, Amuria, Kiryandongo, Kampala, Kasese
Fevered	3.1	Mityana, Kampala, Masaka
Transportation	6.1	Kampala, Soroti, Luwero, Ibanda
Abscession	5.1	Kiryandongo, Masaka, Bushenyi
Bruising/Lesions	2	Kampala, Jinja
Cysts	1	Amuria, Mityana, Gulu, Masaka
TB	7.1	Masaka, Kampala, Luwero, Mukono
Tape Worm	1	Kumi, Kasese
Anti- Biotics	2	Ibanda, Isingiro, Kabarole
Others		Kampala, Kiryandongo, Wakiso, Mityana, Gulu, Kitgum

Contribution To Uganda's Livestock Agenda

The submitted data can be used to generate disease risk maps for Uganda and is a **QUICK** way to generate reports when needed.

Conclusions

- Some diseases were localized e.g. Cysticercosis was reported in Kitgum and Gulu
- Need to identify the motivator for reporting
- Diseases of Public health importance (Tuberculosis, Cysticercosis, Taeniasis) still exist in Uganda

Limitations

- Theft of mobile phones
- Inconclusive diagnosis (Some Lesions need further diagnosis for confirmation)

District	Submissions	District	Submissions
Busia	102	Mukono	96
Jinja	247	Soroti	48
Kampala	328	Kisoro	1
Kamuli	252	Mpigi	28
Kitgum	94	Mbarara	3
Kumi	286	Kiryandongo	42
Luwero	28	Kiboga	1
Lyantonde	7	Ibanda	280
Kasese	144	Masaka	48
Kiruhura	60	Kayunga	35
Wakiso	48	Gulu	24
Mityana	23	Kabarole	17
Bushenyi	15	Isingiro	14
Mbale	10	Buyende	8
Nakaseke	6	Kyegegwa	6
Kamwenge	5	Iganga	5
Ntoroko	2	Kaliro	2
Bundibugyo	2	Buikwe	2
Arua	2	Moroto	1
Masindi	1	Katakwi	1
Nakasongola	2		

Elizabeth Cook
E.Cook@cgiar.org
ILRI c/o Bioversity International
P.O. Box 24384, Kampala Uganda
+256 392 081 154/155



MAAIF
Ministry of Agriculture
Animal Industry and Fisheries



This document is licensed for use under the Creative Commons Attribution 4.0 International Licence. September 2022.

ILRI thanks all donors and organizations which globally support its work through their contributions to the [CGIAR Trust Fund](https://www.cgiar.org/).