

OPERATIONALIZE THE APPLICATION OF PHAGES FOR MANAGEMENT OF BACTERIAL DISEASES (AEROMONAS HYDROPHILA) IN FISH HATCHERIES IN UGANDA

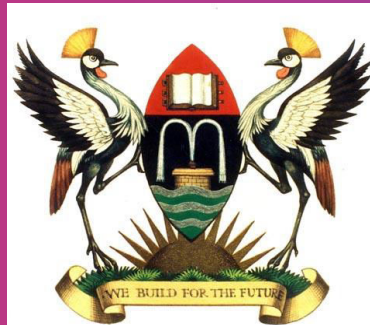
2023

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CARTA ALUMNI

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LECTURER WAA,SVAR,COVAB,MAKERERE UNIVERSITY





SUPPORTING EARLY CAREER ACCADEMIC THROUGH POST-DOCTORAL TRAINING AT MAKERERE UNIVERSITY

Presentation Title

HIGHLIGHTS



	UNCST)									
1.1	Bulk production of phages and check for viability at different temperatures of storage for the phages	x	x							Researcher, student, supervisors
1.2	Stability and survival of phages in feed		x	x						Researcher, student, supervisors
1.3	Stability and survival of phages in water		x	x						Researcher, student, supervisors
1.4	<i>In vitro</i> evaluation of phage activity			x	x					Researcher, student, supervisors
2.1	On station evaluation of phage activity		x	x	x	x	x	x		Mentor, Researcher, Student
2.2	Sensitization workshops for relevant stakeholders				x			x	x	All
2.3	Statistical analyses (experiments, hatchery data, replicates)			x	x			x	x	Researcher, student, supervisors
2.4	Dissemination		X		x		X		x	All
2.5	Monitoring and evaluation	x	x	x	x	x	x	x	x	Head of department/Supervisor

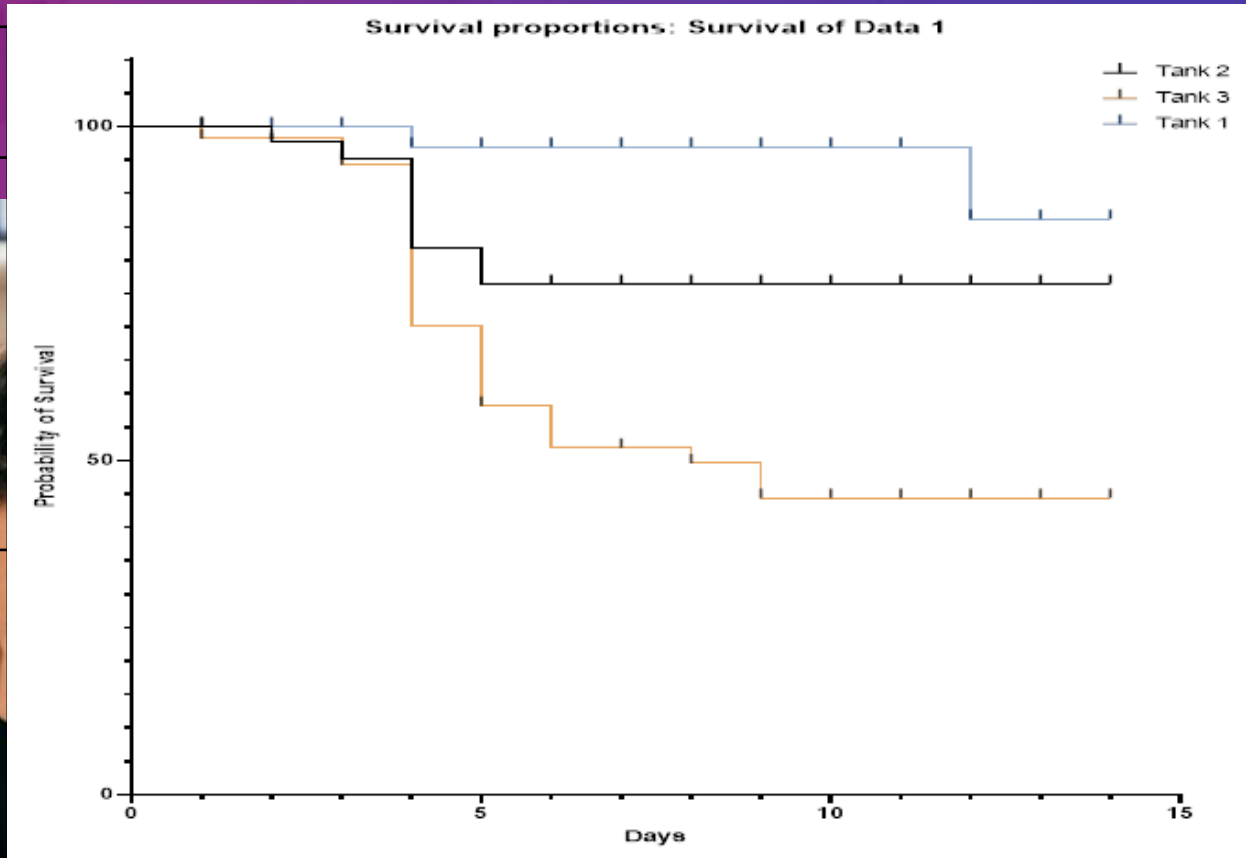
Execution

Project Objectives

To determine the effective concentration, stability and survival of the phages in the environment and feed in water lab tanks

To evaluate the most effective route of bacteriophage application for control of *Aeromonas hydrophila* infection in fish

To evaluate the effect of phages on disease incidences in fish hatcheries, fish mortality, stability of the phages and occurrence of pathogen in diseased fish and water.



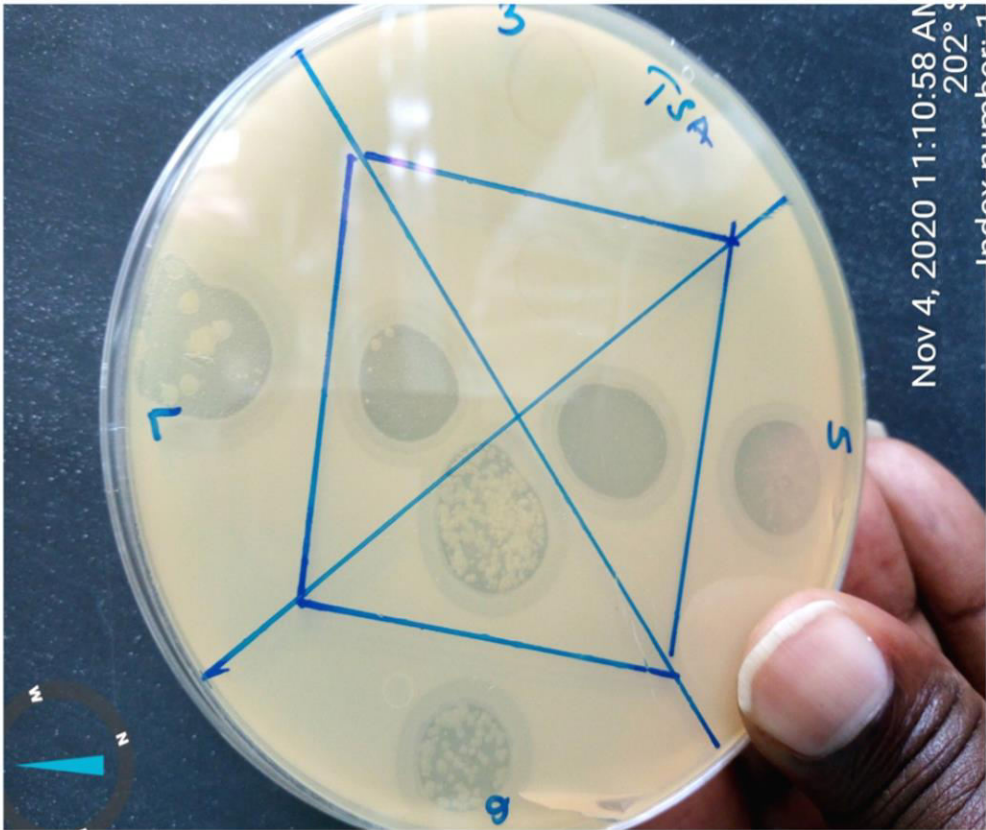
Tank1 Baseline. No phages no *Aeromonas* challenge
Tank 2 phages present and *Aeromonas* present
Tank 3 *Aeromonas* present and no phages



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SECA EVALAUTION AT COVAB

Outputs



COLLEGE OF VETERINARY MEDICINE ANIMAL RESOURCES AND
BIOSECURITY

“EFFECT OF BACTERIOPHAGES AGAINST *Aeromonas hydrophila*
INFECTIONS IN FINGERLINGS AND JUVENILE TILAPIA HELD IN
AQUARIA TANKS”

BY

LABALPINY LONNEX DEBESTO (BMLS, MUST)

2019/HD17/23106U

A DISSERTATION SUBMITTED TO THE DIRECTORATE OF
RESEARCH AND GRADUATE TRAINING FOR THE AWARD OF A
DEGREE OF MASTER OF SCIENCE IN INTERNATIONAL INFECTIOUS
DISEASES MANAGEMENT OF MAKERERE UNIVERSITY

JULY, 2022

Outputs

Manuscripts; One Manuscript has been drafted

Protocol for phage management: the protocols utilized have been standardized and these can be utilized in similar research.

Department equipment through SECA department grant and post graduate grant:
A laptop computer, projector, taxiderms and fish lab equipment i.e. Water quality meter, fish tanks were procured. These boost the water lab for teaching and learning

Challenges and solutions

- Covid lock downs
- Time needed between phage development and bulk manufacture
- Delayed release of funds
- Delayed procurement of equipment
- Workload for Teaching at the university
- Msc student availability
- Bioinformatics sequencing of *Aeromonas* isolates



24th Biennial
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Dissemination



THANKS FOR YOUR TIME AND SUPPORT

