

PRO 2418
Research proposal

Growing
Fire shrimp/ cleaner shrimp
In a
See through cylinder



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Content

1. Introduction
2. Experiment design
3. Significance of the experimental design

1. Introduction

This experimental plan is suggested to increase the larval survivality of fire shrimp and cleaner shrimp.

Under previous experimental trials very low larval survival rate was gained. This can be attributed to,

- Poor water quality conditions
- Inappropriate feeding

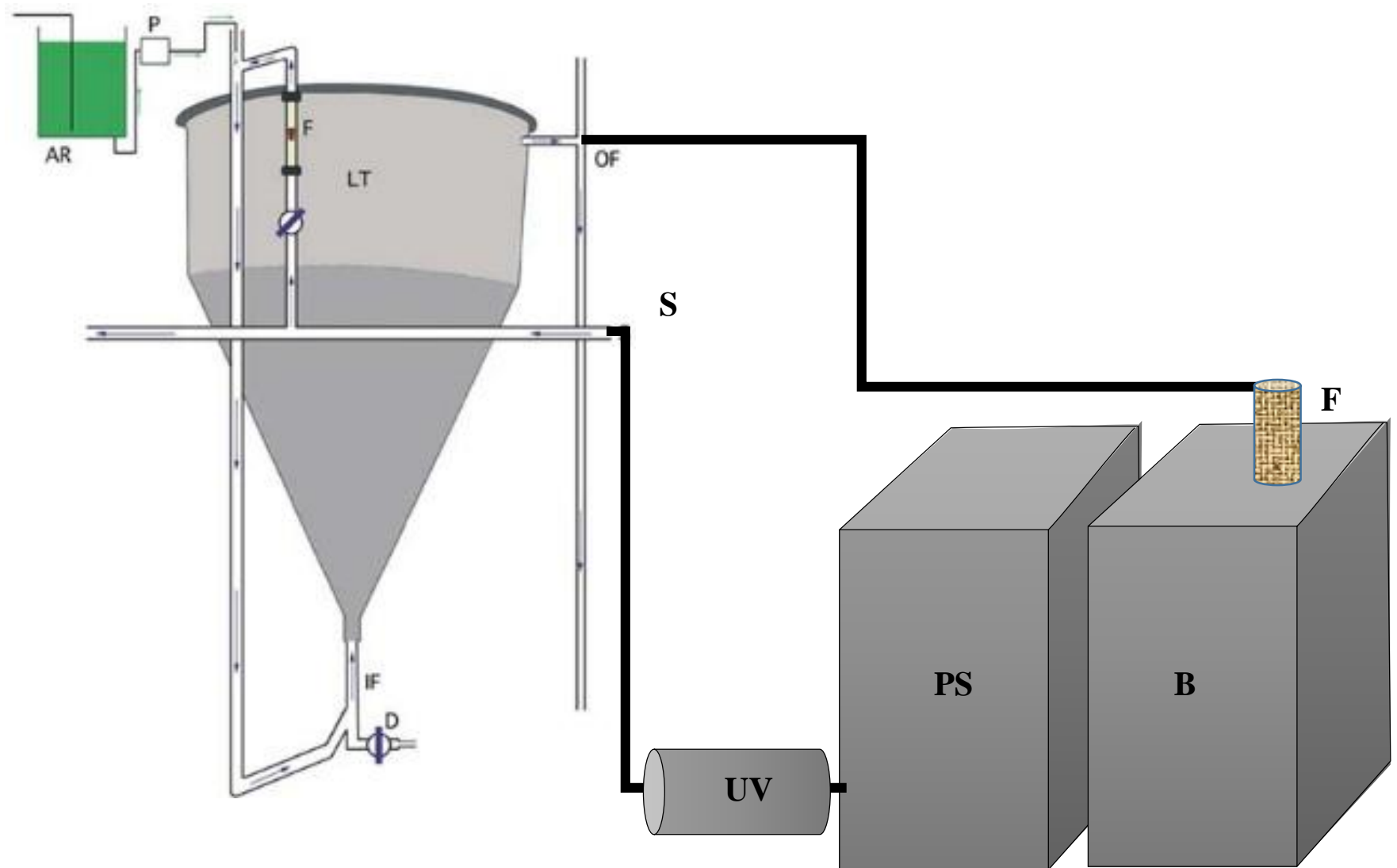
These problems are also meet with difficulties in larval behavior monitoring. Because monitoring of larval behavior is important to determine their growing success.

Hence a see through or transparent cylinder facilitate easy & much better larval monitoring.

Old sand filters can be easily used for this purpose with several modifications. These modifications should be done to

- provide good water circulation inside the cylinder
- provide food for larvae

2. Experimental design



- AR : Algae reservoir
- P : Pressure controller
- IF: inflow
- OF : Outflow
- S : Sea water supply
- F: Filter bag
- B : Bio filter
- PS : Protein skimmer
- UV : UV disinfectant

Cylinder can hold about 62 L of sea water.

3. Significance of the experimental design

- **Algae reservoir:** can continuously feed larvae. So they might not go with hungry.
- **Inflow at the bottom of the tank:** suspend both food particles & larvae in the water column. So the larvae can easily contact with food particles.
- **UV disinfectors:** destroy pathogens which are harmful for larvae.
- **Bio filters & Protein skimmer:** reduce ammonia from the water.s