

Waste Reduction in Cichlid Aquariums



INTRODUCTION

Cichlids require pristine water quality to remain healthy, grow, spawn, and reach full coloration. Dead algae, solid fish waste, and uneaten fish food accumulate in the aquarium, slowly fermenting in the gravel bed. The decomposing organic material suffocates beneficial nitrifying bacteria that comprise the biological filter. This sludge is not removed by aquarium filters and must be manually removed by disruptive siphoning or a complete aquarium clean-out. Adding certain strains of natural bacteria to the aquarium helps to control the sludge build-up resulting in a cleaner, healthier cichlid aquarium. API® SLUDGE DESTROYER CICHLID contains a unique blend of sludge digesting bacteria proven to digest aquarium sludge.

METHODS

Aquatic sludge was collected from fish holding tanks. Four 1000 milliliter graduated cylinders were each filled with 350 milliliters of the sludge. The graduated cylinders were filled to 1000 milliliters with aquarium water.

- Two of the cylinders were treated with SLUDGE DESTROYER CICHLID
- Two of the cylinders were untreated controls
- A single dose of SLUDGE DESTROYER CICHLID was added to the treatment cylinders at the start of the experiment and two weeks later
- After four weeks all cylinders were evaluated for sludge reduction

AIM

To test the effectiveness of SLUDGE DESTROYER CICHLID for the control of sludge build-up in cichlid aquariums.

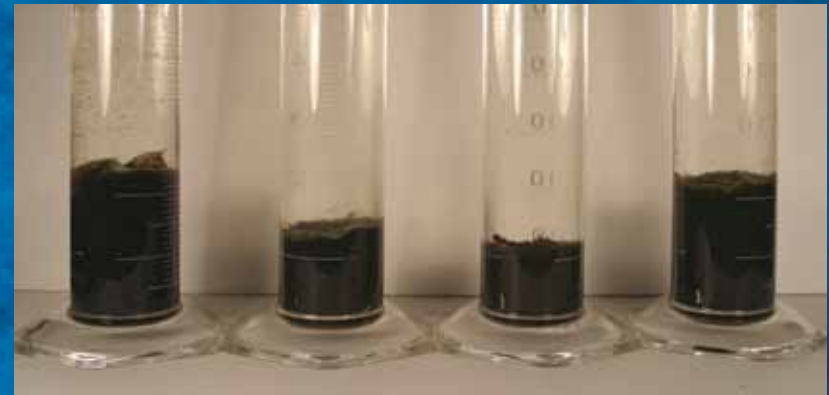
RESULT

- Treated and untreated columns showed a reduction in sludge volume.
- The sludge treated with the SLUDGE DESTROYER CICHLID showed significant sludge reduction compared to the untreated controls.
- The cylinders treated with SLUDGE DESTROYER CICHLID showed an average sludge reduction of 62%.
- Cylinders treated with SLUDGE DESTROYER CICHLID were visibly cleaner above the sludge level.
- The untreated control cylinders had an 18.8% average reduction in sludge.
- The undigested material in the treatment cylinders consisted of live biomass and mineral ash that cannot be broken down by bacteria.

The build-up of organic sludge in aquarium gravel promotes the proliferation of non-beneficial bacteria. Sludge build-up occurs in all cichlid aquariums and cannot be removed by power filters. Use of SLUDGE DESTROYER CICHLID will significantly reduce aquatic sludge and keep the aquarium cleaner while reducing maintenance.



Photograph 1: Cylinders at the start of the test.
Left to right: Control 1, Treatment 1, Treatment 2, Control 2.



Photograph 2: Cylinders at the end of the test.
Left to right: Control 1, Treatment 1, Treatment 2, Control 2.

© 2011 Mars Fishcare Aquatic Research Laboratories, Mars Fishcare North America, Inc.