BiOWiSH™ TECHNOLOGIES

Aquaculture

Case Study

Shrimp Hatcheries, Ecuador

Background

In order to demonstrate the efficacy of BiOWiSH™ AquaFarm, Neptune Supply Group carried out several validation programs at shrimp hatchery laboratories throughout Ecuador in 2012. The hatcheries have a combined production of 152 million PLs per cycle. This case study includes results from four laboratory validations that demonstrated an increase in production and profits for hatcheries using BiOWiSH™ AquaFarm.

The Solution

BiOWiSH™ AquaFarm is a powerful blend of probiotics that improves water quality by accelerating the removal of nitrogenous wastes and enhancing natural biological processes. Proven applications in aquaculture include algae control, nutrient management, odor control, and feed supplementation (in countries with regulatory approval).

Implementation Program

The BiOWiSH™ dosing protocol for each lab are as follows:

Lab	Dosing Protocol	Tank Size
1	6g/day	20MT
2	22g/day	22MT
3	13g/day	25MT
4	18g/day	22MT

Results

The increased production in the hatcheries can be attributed to higher survival rates and increased density.

In the majority of validations, BiOWiSH™ AquaFarm maintained a superior survival rate (72% of comparisons).

In laboratory three, one tank (#11) had an incidence of fungal infection (Lagenidium) while the BiOWiSH™ tanks did not. BiOWiSH™ tanks also resulted in 660,000 PLs more than the Control (1.92x106 vs 1.26x106.) With a minimum of $1.40 USD/ thousand PL, the BiOWiSH™ tank resulted in an additional $924 USD compared to Control. The return on investment of BiOWiSH™ AquaFarm was approximately 40 times the commercial cost of the product used for this tank (400g used).

BiOWiSH™ AquaFarm

- Supports optimal production
- Supports optimal performance in aquaculture systems
- Improves yield
- Improves survival rates
- Improves mortality rates
- Improves growth rates
- Reduces incidence of infection and sickness
- Improves weight gain

Available Sizes

- 100g/3.5oz
- 1 kg/2.2lb

Lab 1

Tank #	Treatment	Origin	Survival	Pls/g	Days Cultivation	Size
8	BiOWiSH™	Maturation A	60%	320	23	PL17
9	Control	Maturation A	49%	330	23	PL17

Lab 2

Tank #	Treatment	Origin	Survival	Pls/g	Days Cultivation	Size
3	BiOWiSH™	Maturation A	45%	320	21	PL15
9	BiOWiSH™	Maturation B	48%	263	21	PL15
1	Control	Maturation A	46%	329	21	PL15
4	Control	Maturation B	40%	375	21	PL15
	BiOWiSH™	**Average**	**46%**	**292**	**21**	**PL15**
	Control	**Average**	**43%**	**352**	**21**	**PL15**

Lab 3

Tank #	Treatment	Origin	Survival	Days Cultivation	Size	Infections
10	BiOWiSH™	Maturation C	48%	21	PL15	No
11	Control	Maturation C	32%	21	PL15	Yes
9	BiOWiSH™	Maturation D	45%	21	PL15	No
7	Control	Maturation D	45%	21	PL15	No

Lab 4

Tank #	Treatment	Origin	Survival	Pls/g	Days Cultivation	Size
13	BiOWiSH™	Maturation E	67%	750	13	PL5
20	Control	Maturation E	60%	730	13	PL5
14	BiOWiSH™	Maturation E	54%	780	13	PL5
23	Control	Maturation E	49%	780	13	PL5

What is BiOWiSH™ technology?

BiOWiSH™ technology creates a powerful blend of probiotics that breaks down complex organic moleculesto help eliminate waste, reduce odors, improve soil fertility, and enhance water quality. BiOWiSH™ products are safe for everyday use in a wide range of consumer and industrial applications.

Available in Asia, Australia, Europe, Africa and the Americas, BiOWiSH™ products provide a solution to some of the most complex problems of our time, from food production to environmental pollution.

Contacts

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