

Case Study Pico Aqua Farm

Shrimp Raceway, Mexico

Background

In order to demonstrate the efficacy of PICO™ AquaFarm in shrimp hatchery applications, raceway trials were conducted in July 2012 by a multinational shrimp producer in Mexico. Despite having 2 times the stocking density of the control, the raceway utilizing PICO™ AquaFarm demonstrated a 12.4% improvement in survival, and a subsequent 62% increase in harvested biomass at the end of the 14 day trial period. This trial adds to a growing list of data that exemplifies the effectiveness of PICO™ AquaFarm in improving aquaculture yields.

The Solution

PICO™ AquaFarm is a powerful blend of probiotics that improves water quality by accelerating the removal of nitrogenous wastes and enhancing natural biological processes. Approved for use in organic food production, PICO™ AquaFarm helps support optimal animal production in aquaculture systems. Proven applications include algae control, nutrient management, odor control, and feed supplementation (in countries with regulatory approval).

Implementation Program

The validation program compared two raceways, a control and BiOWiSH™ treated raceway, over 14 days at a shrimp hatchery in Mexico. The BiOWiSH™ raceway was dosed initially with 1ppm of BiOWiSH™ AquaFarm, followed up by a .5ppm daily dose for the remainder of the trial. Additional dosing included an in-feed dose of 5g of BiOWiSH™ AquaFarm per kilogram of feed. At the end of 14 days, the two raceways were harvested and compared.

Results

Although initially stocked with double the density of the control, the PICO™ treated raceway demonstrated 12.4% higher survival and a 62% increase in biomass over the control. The control observed a higher individual size than the PICO™ raceway, but this difference is likely due to the increased competition for food and stress brought about by the increased density in the PICO™ raceway.

Table 1 – Production Results

Parameter	PICO	Control
Stocking Density (PI/Lt)	8.67	4.33
Average Individual Weight (mg)	83.8	118.2
Survival Rate	93.9%	81.5%
Biomass (kg/m ²)	.68	.42

What is PICO™ technology?

PICO™ technology creates a powerful blend of probiotics that breaks down complex organic molecules to help eliminate waste, reduce odors, improve soil fertility, and enhance water quality. Approved for use in organic food production by the WSDA, PICO™ products are safe for everyday use in a wide range of consumer and industrial applications.

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