

## Case Study Pico Aqua Farm

### Pangasius Farming, Vietnam

#### Background

A prominent Vietnamese producer of Pangasius, a genus of shark catfishes native to Asia, initiated a trial to demonstrate the effectiveness of PICO™ AquaFarm in improving fish production. After eight months, PICO™ AquaFarm yielded an 18.75% increase in individual fish size, a 7.5% increase in survival, and a 52% increase in production per hectare. In addition, the PICO™ treated pond produced a three percent lower Feed Conversion Ratio (FCR), indicating higher efficiency in converting feed to body mass.



#### 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 trial maintained a control pond and PICO™ treated pond, which were both approximately 1 hectare in size. Over the course of the trial, 200 grams of PICO™ were added per 1mt of feed in the experimental pond, for a total of 137kgs during the season.

## Results

Results of the trial confirmed the effectiveness of PICO™ in increasing production and reducing costs in aquaculture. In the PICO™ treated pond, the average daily gain (ADG) was 3.45gms versus the control ponds ADG of 3.16gms. The harvest of the PICO™ pond yielded individual fish weighing an average of 950gms, while the control pond averaged 800gms per fish. Despite having a higher initial stocking density than the control, the PICO™ pond achieved a higher survival rate (77.8% compared to 70.2%.) These factors contributed to a 52% increase in production for the PICO™ pond.

The use of PICO™ also resulted in a lower FCR. The PICO™ pond had an FCR of 1.50 versus the control pond, which had an FCR of 1.55.

Using market pricing data near the end of the trial, an economic analysis of the trial revealed a profit increase of \$165,142 USD/ha, net of the cost of PICO™ AquaFarm.

Parameter	PICO	Control
Area (m <sup>2</sup> )	10,449	10,000
Stocking Density (pcs)	62.40	49.00
Initial Mean Body Weight (gm/pcs)	70.00	60.00
Final Mean Body Weight (gm/pcs)	950	800
Average Daily Gain (gm/pcs)	3.45	3.16
Survival %	77.81	70.28
Productivity (kg/m <sup>3</sup> )	11.15	7.32
Feed Conversion Ratio	1.50	1.55

## Conclusion

By dosing PICO™ AquaFarm as an in-feed additive, the Pangasius farmer achieved a significant increase in production and profit, realizing more than a 10 times return on his investment.

PICO™ AquaFarm has proven to be effective in a wide range of aquaculture applications and cultivation operations, as evident from the results of this recent validation and many other validations in shrimp aquaculture.