

## Case Study – Pilot Project

### Site Description – Commercial Shrimp Farm

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**Site Location:** Shrimp Farm - Philippines

**Site Description:** To evaluate the use of our microbes to enhance production in shrimp pond culture. Shrimp are a bottom feeding crustacea with coprolytic behavior. *Penaeus monodon* is the species of shrimp that is predominantly cultured in the Philippines.



Preliminary controlled tests on 2 - 5 acre ponds have been conducted. The water in the ponds is a mixture of fresh and sea water supplied by an open bay and river.

The average pond size is 1 meter deep.



The application of Oppenheimer Formula I to sediments in the drained tanks and to the water has been shown to double the normal production in the same time period.

All ponds are being monitored continually on a daily or weekly basis for temperature, pH, oxygen, ammonia, nitrates, phosphate, algae, vibrios, growth rate, and mortality.

**Contaminant:** Waste material from shrimp.

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**Recommended Treatment Method (in-situ):** **Goal:** The goal of the program is to reduce cleanup the sediment when the shrimp ponds are drained and rotated in production. A second goal is to improve the density of the shrimp.

**Outcome:** There is also evidence that the microbes may reduce the mortality caused by other competing microorganisms and to control algae. The experiments are being continued in a series of controlled ponds designed to produce information on nutrient regulation, growth rate, mortality, stocking density and microbial application rates.