

## Sludge Reduction in Catfish Pond © 2009

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### Background

Aquaculturists face a growing problem of decreasing water quality. Pollution causes negative feedback on yields and profits. Sludge accumulation is a common problem in aquacultural production. The sludge is not only expensive to get rid of but also contributes to degrading water quality and can cause poor flesh flavor. The Bacta-Pur® System was developed as an ecological engineering tool to contribute to sustainable aquaculture and profitability.

A catfish pond, in California, containing 350,000 gal, was stocked with 3000 lbs of fish for fishing. The pond had no new water added, rather the pond was aerated, and water was filtered through a sand filter. Historically, the pond was emptied prior to each seasonal stocking, and the sludge was pumped out and hauled away by truck. The owner wanted not only to reduce the sludge handling cost but also to lower ammonia levels.

### Treatment Program

The pond was treated for three months with a combination of one liter of Bacta-Pur® XLG and one liter of Bacta-Pur® N3000 per week.

### Results

Twenty one-days after starting the treatment ammonia decreased from 4 mg/L to 0 mg/L. When, after three months, the pond was emptied, the sludge haulers found that the bottom of the pond contained only some pine needles; the sludge had been completely digested.

