

## Case Study: Grease Removal

The problem of degrading 6,000+ ft of grease daily has an easier solution than thought at the 27 MGD a Massachusetts Waste Water Treatment Plant.

"At one time, the plant had more grease in its scum pits than it could handle," said an engineer . "Worse yet, there was nowhere to put it. Local landfills stopped accepting greasy solids."

Now the plants grease problem has been virtually solved. Because of this and other considerations, the engineer said the plant will begin accepting sewage.

How did the Massachusetts Waste Water Plant do it? The plant engineer has discovered that bacteria cultures and nutrients can be used to accelerate the degradation of greasy solids.

In late January 1992, an unused Zimpro tank was converted into a 100,000 gallon bioreactor for greasy solids emptied from the plants two scum pits. Temperatures near freezing in the outdoor pits prevented effective degradation of the grease.

Bio-Systems Products combined with water and common fertilizer were used to get things started. A blower operated 24 hours to provide aeration. After initial treatment, the tank received two doses of Bio-Systems product per week and daily doses of fertilizer.

Despite ambient water temperatures of 47 degrees Fahrenheit, within two weeks the bioreactor had fully degraded the contents of two scum pits, and more. No solids remained.

The plant is now experimenting to determine if the same result can be achieved with the blower on just one hour per day. A reagent test kit is being used to measure levels of ammonia and phosphorus for dosing fertilizer more accurately. The plant will also experiment with using the Zimpro tank as the acceptance point for septic loads.

