

## **Reduction of Grease in Settling Tank & Drains of a Cocoa Processing Factory** ©2009

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*ECOPROBIOTICS®, of the Bacta-Pur® System, are beneficial communities of natural bacteria, which have been on earth for millions of years and have been selected for their synergistic ability to biodegrade pollutants and to improve water quality. ECOPROBIOTICS® increase biodiversity. Just as people take probiotic yogurt for its ability to assure the presence of the optimal community for digestion and immunity, ECOPROBIOTICS® improve ecosystem health. EVERY PRODUCTION of Bacta-Pur® products is analyzed and cleared for shipment ONLY after passing all performance tests and being CERTIFIED PATHOGEN FREE using techniques from the food industry. ECOPROBIOTICS® are purely natural and beneficial. They NEVER contain added chemicals such as surfactants, emulsifiers or enzymes..., nor do they contain genetically modified (GMO) or deliberately mutated organisms. ECOPROBIOTICS® are safe and beneficial. Disease causing organisms are never used, as others do or permit.*

### **Background**

A cocoa processing factory in northern France generates wastewater heavily loaded with grease. The facility had problems with grease accumulation in their water recirculation lines and drains as well as in their clarifier. The time and cost of removing the grease was very onerous. To make matters worse, the local disposal site was being closed, and the sites accepting grease were decreasing. Grease disposal was becoming even more expensive and difficult. The plant manager decided to use the Bacta-Pur® System to digest the grease on site while cleaning the drains and pipes.

### **Treatment Program**

The treatment objective was to clean the drains and clarifier automatically and continuously. The initial treatment consisted of addition of 5 liters per day of Bacta-Pur® XLG during the first week, after which the regular maintenance treatment with 0.5 liter per day continued. The product was preactivated before its addition to the settling tank.

The beneficial microbes in Bacta-Pur® XLG produce the exoenzymes lipases, which convert grease into free fatty acids with lower melting points. The Bacta-Pur® XLG continues the grease digestion by converting saturated fatty acids into unsaturated ones, and by reducing the length of the carbon chain of the fatty acids carbon. This biodigestion process continues to reduce the melting point of grease, while increasing water solubility. The end products of this purely biological process are carbon dioxide, biomass and water.

### **Results**

Grease in settling tank was (completely) digested and grease accumulations in drain lines were reduced by 45%, after only three months of treatment.

The treatment with Bacta-Pur® digested the grease, not just moved it in elsewhere. The recirculation lines, drains and clarifier were now automatically cleaned. The need for power jetting of drains was greatly reduced. Operating costs were reduced.

