

The Results of Using Biofeed Solutions Products in a Sewage Treatment Plant in Chennai, India

BIOFEED SOLUTIONS, INC. FIELD STUDY # ENV-11 "The next generation of probiotic technology"

Biofeed Solutions Inc., USA, offers its Our Products for the reduction of BOD, COD, Sludge, Suspended Solids, Colour and odour in the Water Treatment Plants the world over and especially in countries where proper waste management is limited due to a lack of technology and funding. **Our Products** are **Pro-biological Stimulants, Buffers and Biologically Complexed Nutrients**, which improves the efficiency of microorganisms. Probiotics are designed to work with indigenous microbes in Wastewater Treatment Plants to create healthier, more effective microorganisms that are better able to stabilize and reduce the waste.

Biofeed Probiotics products assists the Microbes in establishing and maintaining a more efficient life function, which is useful in accomplishing many positive environmental objectives. The highly active microbes speed up the natural reduction of Pollution by allowing the Pollutants to become a food source for the microbes. Solid reduction, reduced BOD, COD, less sludge hauling and decrease in the use of inorganic chemicals are some of the benefits of using Biofeed Probiotic Products. We have more than 100 Effluent and Sewage Treatment Plants using these Products successfully in India alone.

Our Product Solution comes under the **category of Pro-biological Products** and not cultured bacteria. The term Probiotic is just opposite of antibiotic. It will work with and support indigenous microbes, which will help to create an Ecosystem to build up the Aerobic bacterial population (MLSS/MLVSS) and higher Dissolved Oxygen (DO) levels. It will also create condition for the proliferation of beneficial types of **cyano** and other **photosynthetic bacteria**, which will be primarily responsible for digesting sludge matters and waste. Apart from this, our composition, AERO has small enzymatic energy systems, which are capable of splitting water molecules, thereby producing elemental oxygen. It is nothing but rebuilding Nature in the Effluent Treatment Plant.

Application and Dosage is very simple: Manual, once in a day or twice depending on the size of the Treatment Plant: **0.5 to 3 PPM** depending on the influent/feed rate and design adequacy of the ETP. **A tank blended combination of these products added at the inlet of the Aeration Tank.**

Products : **AERO™** is the bacteria stimulant and **NUTREX™**, a complex mixture of micro and macro nutrients and **CHETROL™** will detoxify the effluent against any toxicity due to oil, disinfectant, heavy metals, petroleum hydrocarbons etc. Either one or more Products are dozed depending on the nature and characteristics of the effluent.

Pricing : The cost of treatment varies from Rs.2/- to Rs.12/- for treating 1000 liters of effluent.

Usefulness: The results of using these products make them a cost effective alternative to enhance the natural attenuation of waste and the byproducts produced during the waste management process. The following test results are in-situ case studies that prove the benefits and true value of these products in the waste management industry.

CASE STUDIES SHOWING COMPARISON AND BENEFITS OF USING BIOFEED SOLUTIONS IN INDIA WASTE TREATMENT

Effluent Parameters			Inlet to Aeration Tank COD/BOD	Outlet of Aeration Tank COD/BOD	Reduction of COD/BOD %	MLSS in Aeration Tank (1 or 2 Tanks)	D.O. in Aeration Tank	Colour of treated effluent
S.No.	Type of Industry	Probiotic Application						
1.	Flavours, Fragrances and Food Acids	Before	3,000/1,450	240/30	92/98	2500/2000	0.6/0.8	Pale Yellow
		After	Same	120/10	96/99	9000/7500	2.5/4.4	Colourless
2.	Sewage / Canteen / Toilets	Before	735/412	175/30	76/92	500	N.M	Turbid
		After	Same	90/6	87/98.5	3500	N.M	Crystal Clear
3.	Milk Processing	Before	2200/1200	548/102	75/91.5	1500	N.M	Turbid
		After	Same	224/10	90/99.2	4500	N.M	Crystal Clear
4.	Molasses based Distillery of Bulk Drug Unit	Before	30,000/14,500	18,500/6,500	38/55	N.M	N.M	Opaque & Dark
		After	Same	9,500/1,800	68/88	N.M	N.M	Transparent & Reddish
5.	Bulk Drug (new Unit start up)	After	5,000-3,000	700-500	85	3500	N.M	Clear

Note : N.M.- Not Measured
All the above figures are measured in PPM or Mg/Litre

Dedicated to preserving our environment by renewing the life in our soils and water.