

## Bacta cult - Dairy (Anaerobic)

**Bacta cult Dairy** is a combines selected, adapted microbial strains with improves waste degradation capabilities in dairy effluent. Bacta Cult- Dairy contains a combination of anaerobic and facultative organic compounds selected from nature for their abilities to break down a broad range of substances encountered in the dairy waste water. A dairy often generates odours and high BOD waste water.

Dairy industry is a very important and lastly growing food processing industry of world. The dairy industry involves transformation raw milk into products such as consumer milk, butter, cheese, yogurt, condensed milk, dried milk (milk powder), ice cream, and whey powders, lactose, using processes such as chilling, pasteurization, and homogenization. This waste water is simply diluted milk. Dairy waste water is highly biodegradable and Bacta cult Dairy helps to increase the BOD removal efficiency of Biological systems.

Milk



Cheese



Butter



Ghee



The following are the sources of dairy waste water production effluents:-

- The pumping station wastewater (combined wastewater from all the sections of the dairy factory),
- The apparatus room wastewater,
- The butter section wastewater,
- The cheese section wastewater and the cottage cheese section wastewater.
- The milk spillage, drippings, washing of cans, tankers bottles, utensil, and equipment's and floors.

These all contribute largely towards their high biological oxygen demand (BOD), chemical oxygen demand (COD) and oil and grease much higher than the permissible limits. Bacta cult Dairy is fully equipped with required combination of bacteria to reduce nutrients and to with stand high salinity levels. High Salinity Levels is common in case of cheese production contributed due to salting activities during production.

Selected Bacteria is Bacta cult dairy helps to increase the generation of methane, which can be used in the plant as alternative source of energy, depending on the amount that is generated.

#### **Bacta Cult dairy also helps in the following:-**

1. Reduces the High BOD & COD.
2. Helps to control the high TDS & TSS.
3. Control the High Volatile fatty acids.
4. It also helps to degrade the High lactose, which takes part in biodegradation process.
5. Helps to control the high Ammonical nitrogen.
6. Odour Removal from biological systems.
7. Helps to increase acetogenesis and methanogenesis process.
8. Helps to increase the efficiency of Biogas generation.
9. Low production of excess sludge.

#### **Area Of application:-**

1. UASB
2. Anaerobic digester.
3. Anaerobic fixed film reactor.

### PHYSICAL PROPERTIES

Appearance:	Off-white colour
Physical State:	Powdered form.
Odour:	Odourless
Moisture content:	7-8%
Mesh Size	0.5mm

### PERFORMANCE PROPERTIES

Best before:	2 years.
Temperature range:	5-45 ° C
Reactivation rate:-	98% on addition to water
Concentration:-	Highly concentrated

### DAIRY INDUSTRY – WET INDUSTRY

*Dairy plants are considered as wet industry because they consume large volume of waste water, which is used for very diverse purposes.*