

### BFL 5000FG

The main problem with the effluent from dairies is the large amounts of animal fats present. These cause major problems by coating drains, pumps, pumping stations, inlet screens and primary clarifiers. In many activated sludge plants excessive quantities of fat can give rise to *Nocardia* foaming which causes major operational problems. While the bulk of the fats/grease is removed in Dissolved Air Flotation (DAF) units or grease interceptors the remainder must be treated in the wastewater treatment system. Other components of the effluent such as proteins and lactose contribute to an effluent with a high BOD. The seasonal nature of the dairy industry results in high loads and flows, particularly in spring/early summer.



Situations in which the use of BFL 5000FG are beneficial include:-

- |                                |                                    |
|--------------------------------|------------------------------------|
| <b>Plant start up</b>          | <b>Re-seeding</b>                  |
| <b>Poor settlement</b>         | <b>Poor final effluent quality</b> |
| <b>Overloaded plants</b>       | <b>Shock recovery</b>              |
| <b><i>Nocardia</i> foaming</b> | <b>Bulking sludge</b>              |
| <b>Odour control</b>           |                                    |

BioFuture harnesses the power of environmental biotechnology to solve the problems by degrading the fats and grease, proteins and lactose in a highly efficient way. BFL 5000FG uses only harmless, natural microorganisms that deal with the problem by

degrading the organic matter to CO<sub>2</sub> and H<sub>2</sub>O in a highly effective and environmentally acceptable way.

#### What is BFL 5000FG?

BFL 5000FG consists of a carefully selected blend of natural micro-organisms that have the ability to efficiently degrade fats and greases, proteins, lactose and other organic materials in dairy effluents. The wide range of strains have been specially chosen for their ability to produce the broad range of enzymes required to completely degrade the organic matter. These strains grow at a fast rate so that they can



quickly establish dominance in the biological population. The product contains strains which have the

ability to produce good floc structure which will settle well and produce a clear final effluent. The strains in the product work in harmony with the existing biomass and increase its overall efficiency so that plant performance is restored as quickly as possible.

The type of systems in which BFL 5000FG can be used include:-

- |                                  |                             |
|----------------------------------|-----------------------------|
| <b>Activated sludge</b>          | <b>Oxidation ditches</b>    |
| <b>Biotowers</b>                 | <b>MBBR/IFAS</b>            |
| <b>Aerated lagoons</b>           | <b>Membrane BioReactors</b> |
| <b>Sequencing batch reactors</b> |                             |

The microbial strains are produced as single pure cultures, harvested, stabilised on a cereal base and

blended together to produce the final product.

Extensive checks are conducted throughout the process to ensure purity and quality of the product.

#### **Directions for use.**

The product as supplied is on a cereal base so it is important that the bacteria are rehydrated before use. This is achieved by adding the required quantity of product to lukewarm (~30°C) water in a suitable container. Apply 1 part product to 10 parts water, stir well and allow to stand for 1 hour before application. Apply the rehydrated product immediately prior to the



aerated section of the treatment plant e.g. into a drain, pump sump or return sludge line.

Since each application is different and has different characteristics it is important to assess the site before deciding on a dosing programme. The Technical Department provides assistance in assessing the site and devising a treatment programme.

#### **Product safety**

The micro-organisms in BFL 5000FG have all been isolated from natural environments. They have not been genetically modified in any way.

These microbial strains have been classified as being harmless to humans, animals and plants in accordance with EU and WHO guidelines. The

product is subjected to independent testing to ensure that it is free of Salmonella and other contaminants.

For further information on dosing programmes and product application please contact :-

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