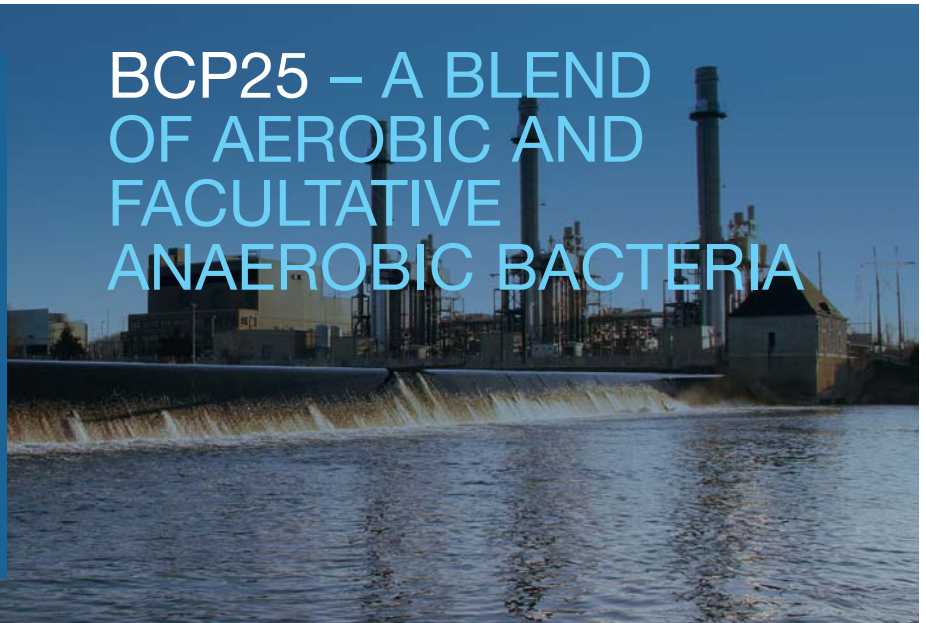




BCP25
DAIRY WASTE
BIOAUGMENTATION

BCP25 – A BLEND OF AEROBIC AND FACULTATIVE ANAEROBIC BACTERIA



Use in milk processing waste applications.

BIOAUGMENTATION WITH BCP25 CAN:

- Help start-ups in new plants;
- Improve effluent quality;
- Increase wastewater treatment efficiency;
- Reduce grease build-up;
- Control filaments;
- Lower odours and foam.

CUT WASTE FROM YOUR DAIRY PLANT

Wastewater from most dairy plants is discharged to publicly owned treatment works (POTWs), where the majority of pollutants are removed before the water is discharged to the environment. Treating the water costs money, and most treatment works charge according to the volume of sewage treated. They commonly apply a surcharge if the waste load exceeds certain specified levels because it costs more to treat water that contains more pollutants.

Wastewater from dairy plants is most often tested for BOD, a measure of the amount of oxygen needed to degrade the organic matter carried by the water. When the BOD concentration exceeds 250 - 300 mg/L, many treatment plants apply a surcharge.

Some dairy plants discharge as much as 12 pounds of BOD per 1,000 pounds of milk received. More than 90% of a plant's total waste load comes from milk components that are lost and flow into floor drains during processing. Lactose, proteins and butterfat are the major components.

Pretreatment ordinances in some localities may limit the level of wastes that can be discharged into the sewer. The waste load must be reduced before the wastewater leaves the dairy plant.

A plant's waste load can have a real effect on profitability and thus plant managers seek to cut waste discharges as much as possible.

SPECIFICATIONS

| | |
|----------------------|--|
| Description | Tan color, free-flowing granular powder |
| Packaging | 250g water-soluble packages; 10kg plastic pail |
| Stability | Max. loss of 1 log/yr |
| pH | 6.0 - 8.5 |
| Bulk Density | 0.5 - 0.61g/cm ³ |
| Moisture Content | 15% |
| Nutrient Content | Biological nutrients and stimulants |
| Bacteria Count | 5 billion per gram |
| Storage and Handling | DO NOT FREEZE! Store in a cool dry location. Do not inhale dust. Avoid excessive skin contact. See MSDS. |

DECREASE YOUR DAIRY PLANT WASTE LOAD WITH BCP25

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APPLICATION INSTRUCTIONS

Treatment Plants –

| Flow Rate | Initial Dosage | Maintenance** |
|--------------------|----------------------|-----------------------|
| Up to 0.1 L/sec | 0.5kg/day for 3 days | 0.5 kg/week |
| Up to 0.5 L/sec | 0.5kg/day for 3 days | 1.0 kg/week |
| Up to 2 L/sec | 5 kg* | 1.5 kg/week |
| Up to 5 L/sec | 8 kg* | 2.0 kg/week |
| Up to 25 L/sec | 15 kg* | 0.25 kg/day |
| Up to 50 L/sec | 25 kg* | 0.5 kg/day |
| Up to 100 L/sec | 50 kg* | 1.0 kg/day |
| Up to 500 L/sec | 50 kg/100 L/sec* | 1 kg/100 L/sec/day |
| Up to 1,200 L/sec | 50 kg/100 L/sec* | 0.75 kg/100 L/sec/day |
| Up to 10,000 L/sec | 30 kg/100 L/sec* | 0.5 kg/100 L/sec/day |

*Spread this initial dosage out over the course of 10 days.

** Add as regularly as possible. If one day is missed, double the daily dosage the next day.

Dosage rates will vary with flow rates, retention times and system variations. The rates above are for a typical, well-maintained system.

Activated Sludge Systems – Activated Sludge Systems include various process flow sheets: e.g. extended aeration, contact stabilization, step aeration, oxygen activated sludge.

The application rate for all products is based on the average daily flow rate to the aeration basin, excluding the return sludge stream.

Trickling Filter and Rotating Biological Contactors – The application rate for all products is based on the average daily flow rate to the filter or contactor, excluding any recirculating process stream.

Lagoon Systems –

- **Aerated systems –** application rate is based on the average flow rate to the lagoon.

- **Facultative systems –** application rate is based on the lagoon surface area:

| | |
|---------|---------------------------------|
| Day 1-5 | 20 kg/10,000m ² /day |
| Day 6+ | 2 kg/10,000m ² /week |

- **Anaerobic systems –** Application rate is based on the total volume of the anaerobic lagoon:

| | |
|------------|-------------------------|
| <200,000 L | 1 kg – 2x/week/10,000L |
| >200,000 L | 0.5 kg – 1x/day/10,000L |

- **Lagoons in cold climates –** commence program when the water temperature is at least 11°C (50°F).

For seasonal or widely fluctuating flows, contact your BIONETIX technical representative.