

Product Line



Bioaugmentation

Our bioaugmentation products contain selected strains of bacterial cultures and are formulated to degrade components found in specific industries such as the pulp & paper, CPI/refining, and food processing industries and municipalities.

- *BioStar™ P*
- *BioStar™ R*
- *BioStar™ GT*
- *BioStar™ DSL*
- *CryoStart™*
- *MicroStar™ 2.0*
- *MicroStart™*
- *NitriFire™*



Wastewater Nutrients

Maintaining healthy biomass requires adequate amounts of critical macronutrients and micronutrients. EBS provides a wide range of customized nutrient blends specific to the bacterial needs of your plant.

- *MacroGro™ Custom Blends*
- *Boost™*



Carbon Sources

The average system loses approximately 3-5% of its biomass per day without adequate BOD. During lower loading, these carbon sources are available to help maintain a consistent carbon source needed for BOD supplementation or nitrate removal.

- *MicroCarb™*
- *CarboBOOST™*



Low Dissolved Oxygen Supplementation & Sulfide Mitigation

Under O₂ deficient conditions, O₂ supply may not meet O₂ demand, putting BOD permit limits at risk. The application of a nitrate salt in liquid form such as calcium nitrate as a supplemental terminal electron acceptor (TEA) can help.

- *CalNit*
- *FerOx*

Our Approach

At EBS, we understand that even the best-managed wastewater treatment facilities can face challenges that impact the treatment process. A substantial increase in BOD loading due to planned or unplanned events, a spill, or the addition of an inhibitory or toxic material places stress on the biological population.

With over twenty-five years of product application experience, we have created a strong portfolio of products that have proven impactful in solving problems related to issues such as poor BOD reduction, excessive solids carryover, nitrification loss, and toxic material related problems.

Bacterial Acceleration Chamber

BAC™ & BAC™ 2



The patented EBS Bacterial Acceleration Chamber (BAC) unit and our second-generation BAC2 unit are designed to use in conjunction with our bioaugmentation line. They can acclimate and grow 100 to 1000X the bacterial population of the dry product in 24 hours!

Application examples:

- Low TSS concentrations
- Acute or chronic presence of toxic/inhibitory compounds
- During system startups, upsets, and/or turnarounds
- Systems with incomplete BOD degradation

Time Frame	Application Method	Growth Factor	Product details	Bacteria applied per \$
1980 – 1995	Dry product addition – Throwing bags and crop dusting	1	1 - 5 billion cfu/gram Inert carrier	2.3×10^{10} cfu/\$
1995– 2005	Simple Grow up tanks or “Bug Farms”	5 – 10x	5 billion cfu/gram Slightly bioavailable carrier	1.1×10^{12} cfu/\$
2005 – 2012	High rate grow up systems (BAC unit)	50 – 100x	1 - 5 billion cfu/gram Formulated substrate	8.5×10^{12} cfu/\$
2012 – present	Two-stage Grow up systems (BAC ²)	500 – 1000x	1 billion cfu/gram Formulated substrate Second stage carbon and nutrient source	2.2×10^{13} cfu/\$

” EBS has provided excellent service with very knowledgeable and professional representatives....When issues arise, EBS has the resources to respond with meaningful help and expertise to guide us as needed. EBS is truly a partner in managing our wastewater process.

-Pulp and Paper Technical Manager

Several shipping options and locations available for rapid delivery!

Why Choose Us?

- 1 Multiple shipping options and locations for fast delivery.
- 2 Size options to meet needs.
- 3 Customized MacroGro formulations with desired N:P ratio.
- 4 Committed to safety and a member of ISNetworld and Avetta.

At EBS, we consider ourselves as consultants first and product suppliers second. Our entire business model is designed and implemented to follow this mantra. However, we recognize that we can't simply talk the bacteria into behaving as we wish. We must provide them with the growth conditions (8 Growth Pressures) they need, and that often requires supplemental products.

Our product line results from twenty-five years of blending traditional wastewater fundamentals with innovative product ideas, unique selection techniques, and best-in-class application strategies. We will walk you through every step, from dosage recommendations to product application and related problems

Industries We Serve



Pulp and Paper



Food & Beverage



Petroleum Refining



Petrochemical



Oil & Gas



Municipal