



MacroBoost
ENVIRONMENTAL PROBIOTICS

WASTEWATER MANAGEMENT SYSTEMS



INFORMATION
SHEET

WHAT WE DO

MacroBoost have specifically formulated products for wastewater treatment programs. These products have been used widely in range of environments including commercial wastewater treatment plants (WWTP), dairy wastewater, sugar refineries, ethanol plants, wood processing waste treatment, abattoir wastewater, algal bloom treatment and soil remediation processes.



HOW WE DO IT

We deliver strategic dosing programs at key waste stream entry points, pump stations or at the problem areas preceding a WWTP e.g. where oil & grease may dominate. These programs look to foster incubation zones of expanded biological activity where true in-situ breakdown will start to occur. This process then continues within the infrastructure (pipelines etc.) As a result of this enhanced activity.

Typical wastewater treatment results;

Waste Parameter	Typical %age reduction
Oil & Grease	90% - 95%
BOD (5)	80% - 85%
TSS	90% - 95%
TKN	65% - 70%

*These results are correlated from ongoing programs but are dependent upon the treatment plant setup, retention time and dosage rates.

The mechanisms of inoculation and microbial balancing employed in our systems allow a constant 'topping up' of microbial populations. The ranges of cultures contained in the various formulations used are chosen to include organisms such as yeasts that provide lots of substrates for other groups of microbes to live on. In addition, groups such as lactobacillus are included which provide a dampening effect on the rampant blooming of some 'negative' organisms.

Consistent inoculation ensures microbial populations remain relatively stable and greatly shortens the recovery time when a "shock-load" occurs, however any biological system is dependent on the principles of sufficient microbe species diversity, surface area, time and space, to be able to achieve an outcome required to meet a given set of parameters.



A MacroBoost dosing system installed to inoculate a cheese factory waste stream. Melbourne, Victoria.



SETTLEMENT POND TREATMENT

Commonly, where a pond is allowed to stand for any length of time or has been in operation for a period, the level of nutrients and/or the lack of complexity in the microbial populations in the water column may limit microbial pathways (food chains). MacroBoost's spray, misting or dosing programs boost the dynamics and efficiency of nutrient breakdown without having any negative by-products produced in the system. These treatment programs will produce a good quality supernatant for discharge and a compact sludge at the bottom of the dam/tank.

Before Treatment



After Treatment

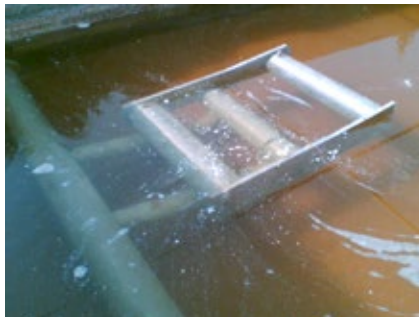


Typical algal bloom results before and after the treatment.

Before Treatment

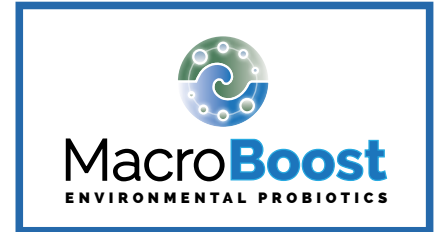


After Treatment



A view of oil & grease reduction before and after the treatment at a cheese & yogurt plant.

General Contact.



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