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BIO-TECH TALK



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GBI DEVELOPS NEW TECHNOLOGY FOR SEPTIC SYSTEMS *SEPTIC-CLEAN™*

Septic systems provide on-site wastewater management for individual residences and other establishments. Typical septic systems may include at least some of the following components: septic tanks, grease and oil interceptor tanks, Imhoff tanks, drain or leach fields, disposal beds and pits, intermittent sand filters, recirculating granular-medium filters, shallow-trench sand-filled pressure-dosed disposal fields, mound systems, complete recycle units and graywater systems. Septic systems are often used for residential wastewater treatment. As more people move to rural and suburban areas not serviced by municipal or community sanitary sewers, the solution for the treatment of household waste continues to be on-site sewage disposal. Wastewater may also be generated at housing units, public facilities and commercial establishments such as restaurants. Waste includes fats and oils, grease, sludge, human waste, food/garbage disposal waste, paper products and laundry effluent.

Conventional wastewater treatment processes are microbiologically mediated. Naturally occurring anaerobic bacteria breakdown and digest the solid waste that falls to the bottom of the septic tank. The microbial processes acting on the solids in the tank may reduce the solids to gases and fine particles. These small solid particles, as well as the oils and greases, float on the surface of the tank and form a scum layer. In the process of floating to the top of the tank, some of the small solid particles, oils, and greases are forced out by the flow of water into the outlet baffle leading into the drainfield. With time, the buildup of small solid particles, oils and greases, and soaps, can cause serious problems in the drainfield.

During normal operation, septic systems fail due to clogging. For example, clogging can occur in septic tanks, grease and oil interceptor tanks and drainfields, including the piping of such systems. The clogging may be caused by biomass buildup or grease buildup. Clogged drainfields are a common and expensive problem facing septic system owners.

In addition to clogging problems, decomposing wastes in conventional septic tanks may produce toxic gases such as hydrogen sulfide under anaerobic conditions. In addition to being a potential health hazard, hydrogen sulfide can be corrosive to tanks and piping networks. Another disadvantage of conventional septic systems is that household chemicals flushed down a toilet or sink can contaminate a drainfield and the subsurface soils and groundwater, resulting in a wide spread contaminant plume and significant liability for the property owner. Contaminated drainfields are very expensive to remediate using conventional treatment technologies.

GBI has developed a treatment system designed to enhance septic system performance while preventing clogged drainfields. *Septic-Clean™* will soon be commercially available at most hardware and plumbing supply stores.

***SEPTIC-CLEAN™ - THE NATURAL SOLUTION FOR SEPTIC
SYSTEM MAINTENANCE***
