



Natural Growing Through Biology

A Biological Farm Management System (BMFS®) Guide For: Bioremediation

Pond & Lagoon Remediation

OP-8™ contains a powerful blend of organic matter and chemical-digesting beneficial soil microbes and is specially formulated to digest hydrocarbons and other toxins from contaminated soils and waters. OP-8 assists nature in balancing the biological populations needed to maintain a healthy system.

When applied to a lake or pond, OP-8 aides in establishing a broad-spectrum population of naturally occurring, beneficial microorganisms to break down the chemical contaminants. By utilizing the various chemicals as a food source (carbon-rich molecules), OP-8 microbes can quickly decompose a wide variety of substances. As the microbes exploit the chemicals as a food source, nutrients (nitrogen and phosphorus primarily) are also consumed as a secondary benefit, which can help counter eutrophication. After the microbes have “done their work,” the system begins to function normally and microbe populations and natural distributions return to normal levels.

These same benefits (organic matter and chemical decomposition, as well as the nutrient tie-up) can also be utilized to help digest waste in lakes, ponds, watering troughs, aquariums, animal manure pits, sewage lagoons, catchment, or slurry with non-antimicrobial contaminants. The microbes utilize the carbon-rich molecules and nutrients as readily available food to fuel their growth and reproduction.

Apply the following products at the recommended rates per acre of pond surface area, in enough water for adequate coverage.

Product	Light application	Moderate application	Heavy application	Frequency of application
OP-8™	¼ - ½ lb	½ to 1 lb	1 – 2 ½ lbs	Monthly
Pepzyme Clear™	12.5 oz	12.5 oz	1 gallon	Monthly

* Pepzyme Clear™ is a high quality, stable enzyme product designed specifically to be used in conjunction with OP-8™ for water cleanup. This product has low toxicity to humans and is safe to handle when used as directed.

For ponds and ornamentals: Moderate rate for first application or Spring (or if higher levels of organic matter or build up observed). For best results, follow up every 30 days to maintain maximum digestion.

For moderate conditions: Moderate or heavy rate for first application or Spring. For best results, follow up every 30 days with maintenance or moderate dose (depending on conditions).

For heavily contaminated conditions (waste, manure, etc.): Use heavy rate for first application or Spring. For best results, monitor conditions and apply moderate to heavy rate regularly (conditions and amount of input material will dictate need). In general, heavy amounts of input (manure, waste, byproducts, etc.) will require heavy dosage on a regular basis (weekly to monthly).

BEST PRACTICES AND BASIC USAGE RECOMMENDATIONS:

- To avoid plugging: If agitation systems are not mechanical, premix products before adding to tank. 50-mesh screen is recommended.
- Do not combine microbial products with antibiotics or materials that contain chlorides, bromine, fluorine, or elemental copper. Use in separate applications at least 2 days apart.
- These products are meant to be used together as a package application and are designed to work in conjunction with each other.
- Non-chlorinated or R/O water is best with a pH between 6.0-6.4 if possible. Water over 105°F. can cause shock and harm to beneficial microbes and enzymes.
- Continuous agitation is recommended to keep materials suspended, vortex well and often when mixing and during use.
- Microbial products should be used within 24 hours after adding water.
- Thoroughly clean and neutralize all tanks, lines, containers and sprayers prior to mixing products, especially after use of any toxic chemicals.

This protocol is intended as support for your fertility program and not as a replacement. It is designed for simplicity and compatibility with almost any fertilizer program. Our specific recommendations to you may vary depending on your unique situation.