



ProMicrobial Magic* - The New Profit Center

Imagine you are a facility service manager facing the daunting task of cleaning up a stadium after a huge sporting event like the Super Bowl. Just as you start to feel overwhelmed by the scope of your duties, an army of hardworking assistants appears to help you and your recently downsized staff eliminate the dirt, germs, bacteria—even foul odors. Now suppose that after this auxiliary team helps you clean up the post-event mess, it willingly—eagerly—stays behind to keep the facility in this cleaner, healthier state—without overtime pay. Finally, envision that instead of the facility service manager, you are the distributor who provided this dream team to your customers.

How popular you would be!

*--by Alan Rathey for Cleaning and
Maintenance Management Magazine*

This scenario might sound like something out of jansan science fiction. But the truth is that for more than 30 years, cleaning products armed with billions (upon billions) of living microbes have been used worldwide to more effectively and efficiently clean and maintain a broad spectrum of facilities—from airports and restaurants to education and healthcare facilities. In addition, compared to most traditional cleaners, microbial products produce equal if not superior results, are competitively priced, reduce labor costs and product expenditures, are safer for humans, and actually help improve the environment. In fact, so impressive are these revolutionary products that the only thing that seems to be preventing them from taking over the cleaning industry is a lack of awareness: Few facility operators, managers, or cleaning professionals realize the existence of these microbial products, let alone the immense benefits of using them. And even fewer distributors comprehend the competitive advantage afforded by selling them. Yet for distributors well-versed in these products—including what they are, how they work, and the positive aspects of using them—microbial cleaners represent a relatively untapped market brimming with sales opportunities.

Good Bugs

Microbes are tiny organisms that live everywhere—in and on the air, soil, water, plants, animals—even us! And most people, especially those in the cleaning industry, are familiar with antimicrobial products designed to destroy bacteria and germs—i.e., harmful microbes—such as those often connected with flu, disease, and epidemics. Yet not all bugs are bad.

Good (safe) microbes feed on organic contaminants, digesting them by producing enzymes that further degrade the organics which, in turn, make them even easier for the microbes to digest. This cyclical process continues for as long as favorable conditions, such as moisture and a food supply, exist. If the moisture evaporates and the food source is totally digested, the microbes

go dormant until they are called back into action by water or organic spills.

Lois Davis is the global business manager for Novozymes Biologicals Inc., Salem, VA—a technology company that works with supply companies to develop microbial products for industry. As such, she is used to explaining what microbials are and how they work in easy-to-understand terms.

“Most people understand enzymes and how they work to break down organics,” Davis says. “We use the actual microbes to produce these enzymes on site. They are like an intelligent, efficient system that, once activated, can detect the organics present, then produce the enzyme necessary to degrade them.”

This degradation process is ongoing. So, unlike ordinary cleaners that are applied and removed—leaving surfaces immediately susceptible to new and overlooked bacteria—the microbes linger in the surface’s pores, continuing to multiply and fight the bad bugs by robbing them of their food source. Better still, these effects are cumulative, which means longer-lasting results and easier subsequent cleaning.

Microbes are definitely efficient cleaners. But alone, their digestion process cannot keep pace with today’s relentless rate of contamination. To speed up the digestion process, lower or nontoxic, biodegradable surfactants, emulsifiers, and cleaning chemicals are used as carriers. In addition to providing immediate cleaning capability, these additives accelerate the breakdown of organics and the reproduction of the good microbes.

Of course, like stains and spills themselves, not all microbes are alike. Their environments and food preferences vary.

“Microbes are taken from the natural environment, often sites of contamination where they have developed mechanisms to survive,” Davis says. “So for example, you might look in areas contaminated by

hydrocarbons and grease to isolate microbes that break down grease.”

Once the specific microbes are found, they are blended for maximum cleaning efficiency.

“Most people understand enzymes and how they work to break down organics,” Davis says. “We use the actual microbes to produce these enzymes on site. They are like an intelligent, efficient system that, once activated, can detect the organics present, then produce the enzyme necessary to degrade them.” --Lois Davis, Global Business Manager, Novozymes Biologicals

“Microbial products include a range of microbes,” Davis explains. “For instance, there is a different mix for grease traps, for floors, for restrooms, etc. The products for the different areas are formulated based on the organics that are expected to be encountered.”

As you might imagine, pairing microbes with the multitudes of organics found in today’s world is no easy task, and one that keeps research teams—including the 700 scientists employed worldwide by Novozymes parent company, Novozymes A/S, Copenhagen, Denmark—more than busy. The complexity of the task also explains industry’s jubilation over such research triumphs as when the right mix of enzymes capable of digesting diverse organics in a cold-wash water environment was discovered for use in laundry detergent.

Jansan Uses

Today, scientists have perfected microbial formulations for jansan use in three general areas:

- **Grease control**—drains, grease traps, kitchen floors and surfaces, loading docks...anywhere grease, fats, and oils are present.

- **Cleaning and odor control**—areas where effective long-term cleaning and

odor maintenance and prevention are required, including floors, surfaces, carpets, restroom fixtures, garage floors, and trash dumpsters—to name but a few.

• **Wastewater cleanup and water clarification**—water and drain lines for sinks and septic systems as well as clarification of aquariums, ponds, and other bodies of water.

While all the scientific data and the areas of usefulness may sound impressive, the question remains: What makes microbial products better than other cleaners used in these areas? Or, in real-world distribution terms, what are the tangible benefits—the selling points—that will “wow” your facility service provider (FSP) customers enough to convince them to buy microbial products? Probably the best way to answer this is to examine how the advantages of microbial products apply to some of today’s top marketplace challenges.

Green, Mean & Lean

As the focus on cleaning’s impact—both positive and negative—on human and environmental health intensifies, distributors are under increasing pressure from their customers to provide safer, less toxic, biodegradable cleaning options. Yet, while FSPs may talk “green,” many fear making the shift to environmentally preferable products, citing ineffectual formulas that leave workers spending more labor hours (money) to produce inferior cleaning results. And, in fairness, many of their concerns are legitimately rooted in the often poor performance of environmentally friendly products of the past. But the past is just that—past.

Microbial products usher in a whole new generation of green products. They aren’t just safer; they also work.

“Microbial products are a very safe, environmentally friendly technology that often eliminates the need for toxic chemicals altogether,” says Davis. “They usually work with chemicals that are safer and less harsh. Formulations are often NSF listed, including the floor cleaners. They are not only “green” but they also provide greater efficacy. As we like to say, ‘They put the mean in green.’”

How mean? Consider that the United Kingdom has recently unleashed millions of the tiny organisms that can break down radiation and clean the walls and surfaces of nuclear power plants that, too toxic for even highly trained hazardous material teams to tackle, traditionally have been filled in with cement or simply abandoned. Meanwhile, researchers at the Mayo Clinic in Minnesota are successfully “training” good microbes to eat diseased cells before they can multiply to combat some of the most deadly human diseases, including many forms of cancer. Just imagine what these little devils do when they are let loose in clients’ drains, floors, grout, and carpeting!

Besides reducing human exposure to harsh chemicals, microbial products offer other safety advantages. For example, microbial floorcare products have long been considered the “secret weapon” for reducing slips and falls and other accidents—and their potential litigation—especially in such sectors as foodservice facilities that are prone to dangerous grease

films and build-up. Meanwhile, moisture-loving microbes are especially effective in carpet care, helping break down organics and reduce the incidence of molds, allergens, and other illness-causing bacteria to the point that some major carpet manufacturers incorporate them right into the carpet’s backing! You can find this technology in carpet padding under the Odor Eater, Arm &

Hammer, and even the Stainmaster brands.

Cost Savings

Just as they dispel the myth that environmentally preferable products are inherently less efficient than their harsher, more toxic counterparts, microbial formulations turn the theory that green means more expensive on its proverbial head.

For starters, most of these products are competitively priced. Add residual effects that produce longer-lasting results, make subsequent cleaning easier, and require less product use to an extremely long shelf life and microbial products prove a far better economic choice compared to shorter-term, less efficient, but equally priced cleaners. And because they often can be used at lower temperatures than other cleaners, microbial products also can lower energy costs.

This said, below are some specific examples of how microbial products can save time and money in key jansan areas:

Restrooms

Bacteria-eating microbes not only degrade organics on contact, but also, by penetrating into the pores of even hard surfaces, keep working to eliminate residual organics—and their telltale odors.

Floor care

Countless formulas are made to clean floors, but microbes alone continue to digest grease, spills, and other organics left behind in damp pores, corners, and crevices, leaving floors deep cleaned for easier ongoing maintenance; less slippery, and odor-free.

Carpet care

Moisture loving microbial products excel at penetrating carpeting, including its backing and the pores of its subsurface, where traditional carpet cleaners can’t—or don’t have time to—reach. In fact, so effective are these microbes at degrading spills, and other organics in carpet that most jansan suppliers

Microbial products usher in a whole new generation of green products. They aren’t just safer; they also work.

recommend and carry microbial-containing products—whether they realize it or not!

Waste receptacles

Microbial products are a favorite with foodservice, healthcare, and other customer-focused sectors where unhealthy bacteria and unpleasant odors emanating from dumpsters, trash cans, and other waste receptacles can jeopardize health—and business.

Drain lines

With repeated use in drains and septic lines, good microbes colonize, driving out bacteria that create clogs and odors and replacing it with a thinner, more active biofilm that continues to degrade organic contaminants. This helps lines remain free-flowing and can even help prevent slow moving drains from becoming fully clogged catastrophes, thus lessening the need for costly emergency service and repairs.

Septic systems

Used in water treatment for decades, microbes help break down solids and soluble organics, helping to control odors, avoid excessive pumping, and extend the life of drain fields as well as clean the water itself.

Often referred to as “nature’s only approved cleaning system” microbes have been cleaning the world since life began. (“Without them, we’d all be up to our armpits in leaves,” Davis says with a laugh.) And they have been used in wastewater treatment and soil remediation for nearly a half century. Yet it is relatively recent that these microscopic workers began munching their way into the hearts—and grease and organics—of the jansan world for use in facilities worldwide. But one thing is for sure: Microbes are persistent. And if you don’t introduce your customers to these ravenous cleaning agents, you can bet lunch your competitor will.

--by Alan Rathey for Cleaning and Maintenance Management Magazine