



Food & Beverage Manufacturing, Minus the Microbes



Cleaner food production will help reduce contamination, the incidence of food-borne illnesses and costly recalls.

The Multi-Faceted Cost of Contamination

Bacterial contamination in food processing environments can result in lines being shut down, expensive clean-up crews being hired and harsh chemicals impacting machinery. If the product has shipped, expensive recalls become necessary and brands can suffer a loss of market value that could take years to rebuild.

Food contamination is caused by millions of invisible microbes that can double in number every 20 minutes.

48 million people suffer from food-borne illnesses every year with 3,000 deaths resulting in the U.S. alone. (Source: U.S. CDC, 2020)

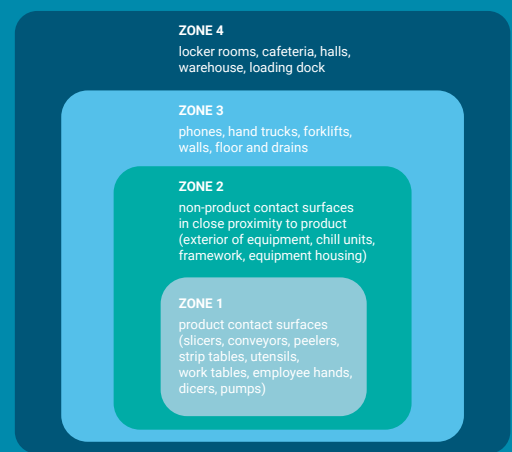


Routine, Episodic Cleaning is Not Enough

Every surface is a potential breeding ground for bacteria and routine cleaning simply cannot keep up with the proliferation of germs. Bacterial colonies re-form after each cleaning, whereas the continuous cleaning action of antimicrobial light decreases colony numbers by creating an inhospitable environment, preventing regrowth.

FDA FSMA Production Zones 1-4 all benefit from antimicrobial light:

- Installing antimicrobial light in any zone will benefit all zones as it decreases the amount of bacteria transmitted between zones.
- Vyv has case studies that apply to each zone, showing efficacy of 90-99% reductions in bacteria in a matter of weeks in environments similar to Zones 1-4.
- The flexibility of Vyv antimicrobial lighting enables it to light entire production lines, as well as hard-to-reach spaces under and within equipment.
- Antimicrobial light is an effective foundation for a multi-layered defense system.



Source: Safe Food Alliance 2020



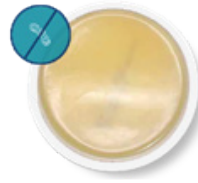
Vyv's patented antimicrobial light technology is proven to reduce the presence of Bacteria, Fungi, Yeast, Mold and Mildew.

After Four Days Under Standard Lights



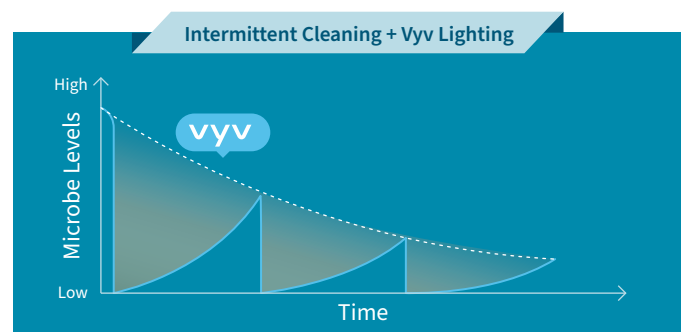
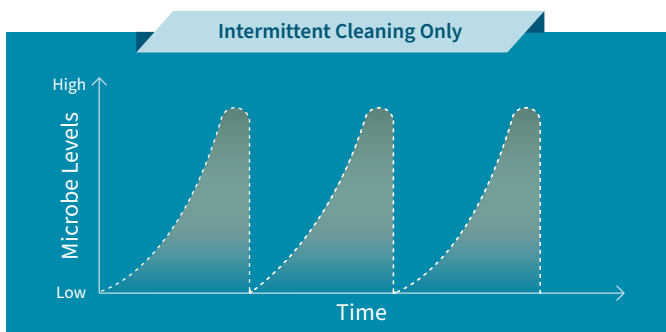
Black Colonies of Bacteria

After Four Days Under Vyv Antimicrobial Lights



No Visible Colonies

- Vyv antimicrobial LED lights are tuned to create an inhospitable environment for microbes so they cannot grow.
- Vyv is a new class of high impact antimicrobial light within the visible light spectrum. Unlike harmful UV light, Vyv meets the international standards for continuous and unrestricted use around people.
- From the largest places to the smallest spaces, Vyv reduces microbial buildup inside homes, workplaces, public spaces and in many industries.



Make Vyv non-UV light part of your 21st century antimicrobial defense system. Standard cleaning only protects intermittently. Bacteria rapidly build up in between cleanings. Vyv reduces microbial growth continuously.

Vyv's single-diode light technology is available in two antimicrobial modes:



White Antimicrobial+Light Mode



Violet Enhanced Antimicrobial Mode

*Testing on a non-enveloped virus (MS2 bacteriophage) showed a 97.12% reduction in controlled laboratory testing in 8 hours on hard surfaces. Testing on SARS-CoV-2 (enveloped virus) showed a 96.76% reduction in controlled laboratory testing in 8 hours on hard surfaces. Testing on MRSA and E. coli showed 90%+ reduction in controlled laboratory testing in 24 hours on hard surfaces. Results may vary depending on the amount of light that is reaching the surfaces in the space where the product is installed and the length of time of exposure. Use of Vyv antimicrobial light is not intended to replace manual cleaning and disinfection practices.