Food Retail - Bar Air Disinfection Biosecurity

Air Samples

A series of air samples were taken pre-treatment, on 12/12/20, and in-treatment, on 12/18/20, 12/19/20, 12/26/20, and 1/2/21. Exterior untreated air samples were also taken during those same times.

Sample Date	Treatment	Number of Samples	Location	Avg cfu/m³	% Reduction
12/12/2020	Pre-treatment	20	Interior	333	N/A
12/18/2020, 18:00	In-treatment	20	Interior	73	78.1
12/18/2020, 19:30	In-treatment	20	Interior	51	84.7
12/19/2020, 14:15	In-treatment	20	Interior	25	92.5
12/26/2020, 15:30	In-treatment	20	Interior	18	94.6
01/02/2021, 14:15	In-treatment	20	Interior	12	96.4
12/12/2020	Untreated	3	Exterior	1,178	N/A
12/18/2020, 18:00	Untreated	3	Exterior	1,200	+1.8
12/18/2020, 19:30	Untreated	3	Exterior	1,189	+0.9
12/19/2020, 14:15	Untreated	3	Exterior	1,222	+3.6
12/26/2020, 15:30	Untreated	3	Exterior	1,200	+1.8
01/02/2021, 14:15	Untreated	3	Exterior	1,233	+4.5

Noted below are airborne organisms found during the pre-treatment & in-treatment sampling, excluding outside samples

Species	Raw Count 12/12/2020 (Pretreatment)	Raw Count 12/18/2020 18:00	Raw Count 12/18/2020 19:30	Raw Count 12/19/2020 14:15	Raw Count 12/26/2020 15:30	Raw Count 01/02/2021 14:15
Penicillium, aspergillus types	1,050	446	365	221	120	110
Penicillium brevicompactum	970	310	272	140	95	90
Aspergillus fumigatus	876	280	145	72	85	< 5
Penicillium purpurogenum	745	110	85	< 5	< 5	< 5
Cladosporium sphaerospermum	656	87	< 5	< 5	< 5	< 5
Ulocladium chartarum	570	< 5	< 5	< 5	< 5	< 5
Absidia spp	480	< 5	< 5	< 5	< 5	< 5
Firmicutes spp	320	< 5	< 5	< 5	< 5	< 5

The initial bioburden from the pre-treatment samples taken on 12/12/2020 showed an average of 333 cfu/m³, which > 300 cfu/m³ and considered **not acceptable**, needs corrective action.

Sampled areas showed a **96.4% reduction** in airborne organisms over 3 weeks time. The final in-treatment samples taken on 1/2/2021 showed an average of 12 cfu/m³ and is now considered **clean and acceptable**.





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Contact Samples

A series of contact swabs were taken pre-treatment, on 12/12/20, and in-treatment, on 12/18/20, 12/19/20, 12/26/20, and 1/2/21.

Sample Date	Treatment	Number of Samples	Location	Avg cfu/cm ²	% Reduction
12/12/2020	Pre-treatment	15	Interior	32.0	N/A
12/18/2020, 18:00	In-treatment	15	Interior	20.8	35.0
12/18/2020, 19:30	In-treatment	15	Interior	14.5	54.7
12/19/2020, 14:15	In-treatment	15	Interior	6.5	79.7
12/26/2020, 15:30	In-treatment	15	Interior	2.9	90.9
01/02/2021, 14:15	In-treatment	15	Interior	2.5	92.2

Pre-treatment results from 12/12/2020 showed an average of **32.0 cfu/cm²** and are substantially > 10 cfu/cm², which is considered **not acceptable and needs corrective action**.

Each set of swabs showed an overall decrease in bioburden over time for the areas examined. The final set of swabs taken 1/02/2021 showed an average of **2.5 cfu/cm²**, a **92.2% reduction**. At < 5 cfu/cm², these areas are considered **clean and acceptable**. Continued treatment will further reduce these counts.

TESTIMONIAL: "We selected ADB because the product utilizes a safe, scientifically validated antimicrobial technology that achieves continuous inactivation and neutralization of viruses, bacteria, molds, mildews, and volatile organic compounds (VOCs) through an advanced air and surface disinfection process. Third-party laboratory studies showed that their Air Disinfection Biosecurity Technology can destroy viruses in the air within one minute. The ability to neutralize pathogens when one person exhales and another inhales is critical to halting the transmission of COVID as an airborne disease."

- Christopher Vendetti, 10% Solutions