

NATIONAL CAMPAIGN



DISTRICTS CAMPAIGN SOUTH REGION

1-Caacupe
2-Lambare
3-Luque
4-Capiata
5-San Bernandino
6-Paraguari
7-San Juan Bautista Misiones
8-Encarnación
9-Coronel Oviedo
10-Ciudad del este



STAGE TWO: Centre region







Campaign to raise awareness about the use of UVC and Ozone technology to treat aerosols in refrigeration units in enclosed spaces or scarcely ventilated rooms.

Strengthening the brotherly bonds between Argentina and Paraguay, and in the face of the urgent need of providing a solution in the midst of the pandemic to the problems caused by aerosols in enclosed spaces, arose this enterprise in which Paraguay plays a key part. We call upon all the main Ministries, Departments, and akin organizations and institutions to incorporate this technology to the current protocols. This technology will be installed in public and private institutions that endorse and adhere to this campaign during its execution.



Osadía

Aerosol treatment system and air renewal in refrigeration units in enclosed spaces.

Mosquito-repellent action.

Traditional prevention methods, such as wearing masks and keeping a seven feet social distance, are no longer effective enough if we are in crowded places where unchecked refrigeration units are working. Whenever somebody coughs, speaks, or even breathes, expels to the surrounding air tiny droplets that are left suspending for minutes or hours, and that are sucked by the refrigeration unit air intake and are later on disseminated all over the place. These aerosols are dangerous due to their microscopic size, which allows them to penetrate the respiratory system and significantly increasing thus the risk of infection. Our equipments disinfect up to 99% of the renewed air in a matter of minutes, leaves no residual chemical trace, and if used properly it causes no harm to people around it. Furthermore, it repels mosquitoes, which helps fight Dengue, Zika virus and Chikungunya virus.

Advantages

- Prevents airborne transmitted diseases contagion that could be spread by the refrigeration units.
 Remove 99% of biological contamination that enters the air conditioner
- (organisms that could behave like pathogens in the room).
- **3.** Reduces the viral load.
- 4. Improves the quality of the air in the room.
- 5. Externally mounted and hardly any maintenance required.
- 6. Works with the user's air conditioner, which accounts for a very efficient aerosol treatment at a very low cost.
- **7.** Works through an app, since it has automation technology, or directly by turning on the air-conditioner.
- 8. Insect-repellent action, it helps fight dengue, zika virus, and chikungunya.



Refrigeration Unit



Scientific Reseach LAB TESTS



Fernando H. Manera, PhD.

Founder and first President of Córdoba Province's Bromatology, Environment and Zoonosis Association. Head of MicroBioLab. Former CC Communal Health and Prevention Secretary. Exo-Toxicology Professor of Post Graduate in UCCY **Graciela del V. Maldonado, PhD.** Specialist on Bacterioloy and Former Head of the Bacteriology Laboratory at Vicente Aguero Zonal Hospital. Co Director of MicroBioLab.rectora de MicroBioLab.

Conclusion/Findings:

In this study we could control the amount of microbial load, practically impossible to find as normal level of contamination on a surface (1x105 ufc/ml).

We can conclude that if we managed to control such a heavy microbial load on a surface (P1. sheet under the air intake) in the air the germicidal action would be much more effective and swift, due to the level of microbiological contamination in this medium is far less than in a surface.

Therefore, we can assert that, if the refrigeration unit is treated with a UV-C lamp on the air intake, air renewal through that unit will be completely sterilized due to the UV-C action as well as the Ozone concentration inside the den in the prototype (on levels absolutely harmless for human beings). The air that goes into the equipment, just because of the mere fact of being exposed to the UV-C is rendered instantaneously free from microorganisms.

Since the equipment works closed it does not allow any UV out and, because the O3 level that generates is low it can be left permanently operative, keeping the O3 concentration controlled and efficient, and marking a sharp difference in the viral load exposed, as it is shown in the studies carried out. In those studies, we can see the sheets after two hours in the same environment (the lab) exposed to O3 and not exposed to O3, keeping the same environmental conditions: In presence of O3 the concentration was evidently low, within the range allowed by environmental and labour laws, as it can be seen in the measurements in the equipment (P2, P3, P4, P5).

We can corroborate that the equipment works efficiently combining the two methods, UV-C and O3, since it disinfects the air that enters while lowering the load of O3 kept in the air, thus decreasing the microbial presence.

On the basis of the results yielded, we consider that Osadía's air conditioner external disinfection system is a superb method to control microorganisms, bacteria, fungi, and viruses such as COVID-19 that enter through the air intake in refrigeration units, guaranteeing a sterile and sanitized renewal, so it can be successfully used in homes and to complement safety protocols in education and health facilities, such as hospitals, clinics, labs, etcetera, as well as in food processing and food sales facilities, or any kind of facilities such as factories, supermarkets, corner shops, restaurants, and department stores.





Segmento de placa expuesta en rejilla de toma de aire de equipo de refrigeración (efecto UVC)



Compartivo carga viral



Disminución significativa en dos horas de explosión O3



This technology is already being used in hospitals, sanatoriums, and clinics belonging to the Republic of Paraguay Health and Human Services System

CALLING TO:





UNIVERSIDAD NACIONAL DE PARAGUAY

FACULTAD DE CIENCIAS QUÍMICAS





TEKOMBO'E HA TEMBIKUAA Motenondeha Ministerio de EDUCACIÓN y CIENCIAS







ARGENTINA

Adrián Cornejo 1945 Cerro de las Rosas, Córdoba X5009 +54 9 3516 50-8428 info@graciasavos.org Molas Lopez 970 casi Pastor Filártiga, Asunción, Paraguay +595 974 350991 www.graciasavos.org

PARAGUAY