MONTEVIDEO, March 31, 2021.-

FINAL RESULTS REPORT

Applicant : FERNILAND SA

Reference : Analysis services of the microbiological quality of the air before and after the installation of an EcoVIOX equipment in a controlled space.

Evaluated equipment: EcoVIOX, model EV - O - 600

Other equipment data: Origin: CHINA, Dimensions: 65 x 26 x 31 cm, Net weight: 7.8 Kg

Specific test
"Application of the systemic evaluation service of the microbiological quality of air in internal environments *en casa* to determine the performance of the EcoVIOX equipment, model EV - O - 600 in the microbiological decontamination of air "

Methodology used. Molecular detection of bacteria using the 16S marker and molecular detection of SARS - CoV2 from the genetic material extracted from the samples.

Experimental design. The equipment was located in a 0.7 m cabin ^{3} conditioned to be able to carry out the tests in controlled conditions (without drafts and isolated from the movement of people). A suspension of a microbial community of known composition and a suspension of synthetic viral particles of the SARS-CoV2 virus were added with a spray bottle.

4 samples were taken in the cabin: T0 (before adding the inoculums, control of the basal level of contamination), T1 (after adding the inoculums in the absence of the equipment, positive control with maximum contamination), T2 (after adding the inoculums in the presence of the EcoVIOX team

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model EV-O-600 after 30 min of operation) and T3 (after adding the inoculums in the presence of the EcoVIOX model EV-O-600 after 60 min of operation).

The samples taken were processed individually to purify the genetic material from the microorganisms and then detect them by the molecular techniques mentioned in the methodology.

RESULTS

The results obtained are summarized in the following table:

SHOW	INOCULUS	TEAM EcoVIOX model EV - O - 600	WEATHER Working (min)	Detection molecular of SARS - CoV - 2	Detection molecular of bacteria by 16S
T0	Not applied	ABSENT	NC	NON DETECTABLE	NON DETECTABLE
T1	APPLIED	ABSENT	NC	DETECTABLE	DETECTABLE
T2	APPLIED	SWITCHED ON	30	DETECTABLE	DETECTABLE
T3	APPLIED	SWITCHED ON	90	NOT DETECTABLE	NOT DETECTABLE

NC: not applicable.

Determination by 16 S of the load of bacteria in the air:

The 16S molecular detection of the microbial genomes was able to amplify the DNA extracted from the suspension artificially inoculated in the 0.7 m cabinet. ^{3} in the absence of the EcoVIOX model EV-O-600 (sample T1).

The result of the analysis reveals that after operation of the EcoVIOX model EV-O-600, both for 30 and 90 minutes in a controlled space of 0.7 m ^{3,} reduces by 99.7% (sample T2, 30min) and at NODETECTABLE levels (sample T3, 90min), the microbial DNA present in the environment.

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Determination of the SARS - CoV2 load in the air:

The molecular detection of the SARS - CoV2 virus was able to amplify the RNA extracted from the suspension of synthetic viral particles artificially inoculated in the 0.7 m booth. $_3$ in the absence of the EcoVIOX model EV-O-600 (sample T1).

The result of the analysis reveals that after operation of the EcoVIOX model EV-O-600, both for 30 and 90 minutes in a controlled space of 0.7 m $_3$, reduces by 99.9% (sample T2, 30 min) and at NON DETECTABLE levels (sample T3, 90 min), the SARS-CoV2 genome present in the environment.

CONCLUSIONS EQUIPMENT EcoVIOX model EV - O - 600

The results obtained indicate that the EcoVIOX model EV-O-600 operating in a controlled environment of 0.7 m $_3$, not exposed to fluctuations in air currents and artificially loaded with a certain load of bacteria and synthetic viral particles of the SARS-CoV2 virus, it is capable of reducing, by 99% (after 30 min of operation) and to non-detectable levels (after 90 min of operation), the applied microbiological load.

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