

CANNABIS GREENHOUSE CASE STUDY

2025 Test Data by SCS Engineering

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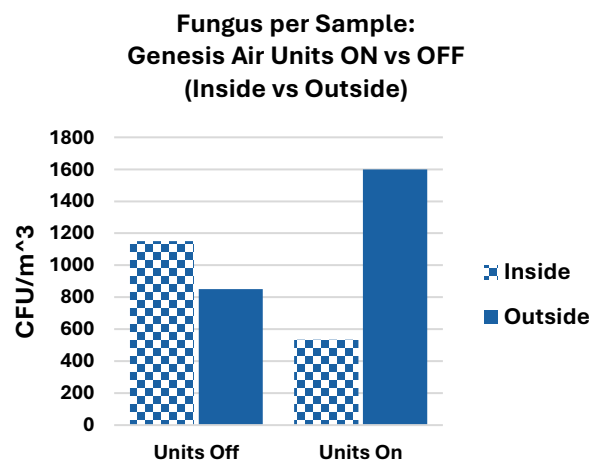


Facility

In May of 2025, Genesis Air, Inc. air purifiers were installed at a cannabis grow facility in Santa Barbara County, California. (14) units, model Condor Verde (2008 B2), were hung from the ceiling in a flowering greenhouse. Third-party testing was performed by SCS Engineering to validate the air purifiers' performance.

Fungal Testing

On July 15 and 16 of 2025, mold testing was conducted in a flowering greenhouse. The purpose of this test was to determine the air purifiers' effect on airborne fungus. Samples were taken using Anderson Samplers and Agar plates, at 28 L/min for 3 minutes. On the first day, 4 samples were taken with the air purifiers turned off. On the second day, 4 samples were taken with the air purifiers turned on. The results showed a 67% reduction in colonies per species and a 53% reduction in colonies per sample plate.



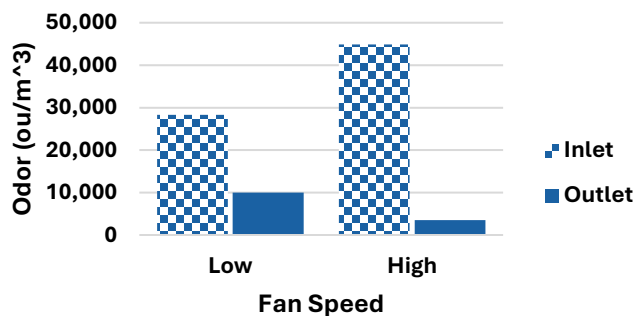
Odor Testing

On May 19 and 28 of 2025, odor testing was conducted in a flowering greenhouse. The purpose of this test was to determine the fan speed and PCO panel count needed to provide the highest single-pass odor reduction. Samples were taken using 10L Tedlar bags while a Scentroid SS400 six-station portable olfactory meter was used to evaluate the odor level. The results indicated that a (2) PCO panel configuration had the highest single pass reduction. At low speed there was a 65% reduction in odor and at high speed there was a 92% reduction in odor.

There was a 52% reduction in total sulfides with a single pass through the Genesis Air (2008B) Condor fitted with (4) PCO panels and operating at high speed.



Single Pass Odor Reduction with (2) PCO Panels



Safety Testing

On September 15 and 17 of 2025, by-product testing was conducted in a flowering greenhouse and a drying and processing area. The purpose of the test was to detect the presence of any dangerous gases within the facility, as well as gases emitted by the air purifier. The gas analysis focused on aldehydes and carbonyls. Samples were taken using DNPH cartridges, running at 1.5 L/min for 8 hours. These samples were sent to Atmospheric Analysis & Consulting Laboratory for analysis. SCS Engineers concluded that “No samples exceeded health standard concerns for any constituents measured; and all ozone concentrations were below ambient.”

Simple

Genesis Air units were used in place of the existing circulating fans instead of a complex system addition.

Safe

Third-party validation of performance on odor and bioaerosols was used to measure efficacy as well as environmental safety.

Sustainable

A low energy consumption technology was applied utilizing sustained performance without constant material renewal.

Solutions

An engineered solution was derived to solve an odor problem with an opportunity for ROI by fungal reduction.

