



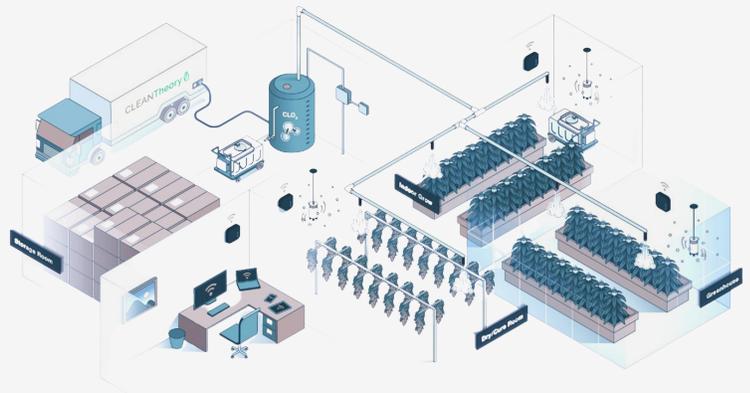
Treating "Land, Water, and Air" for Indoor Agriculture

With indoor cultivation (medical, horticulture, and ornamental) growing at robust rates, the need for effective and efficient microbial and odor suppression methods has become increasingly critical. Operators often see losses to disease ranging on average from 20% to 40% of annual yields and some even experience higher losses due to uncontrolled outbreaks. The health and well-being of plants, employees, and the end-consumer have never been in greater focus and operators need to tackle the double burden of product and people security.

CLEANTheory (www.cleanttheory.net) saw an opportunity to develop a new technology-driven platform to help reduce the impact of disease and unwanted odor for indoor cultivation. The result is the first automated, IoT-enabled, facility-installed disease detection and suppression system featuring the power of premium chlorine dioxide.

How It Works

CLEANTheory's platform is one of the first to apply, at scale, the combination of pathogen and sanitation science, leading AI technology, and predictive data models to the multi-billion dollar indoor agriculture industry in order to achieve levels of performance for disease and odor mitigation that are virtually unmatched in speed, overall performance, and net cost.



The Results

- High levels of pathogen suppression that's safe when plants and people are present
- 99.9% to 99.9999% kill of target pathogens when used as a sanitizer or disinfectant
- Scalable from small to large facilities through manual use or automated components
- End-to-end use/coverage for grow rooms, hallways, tool dips, etc.
- Effective odor mitigation for operators with municipal odor ordinances
- Concierge, recurring filter replacement service & upgraded filtration equipment to ensure optimum air quality



The Benefits of CLEANTheory

The **CLEANTheory** platform team installs disinfection and odor reduction equipment, automated and hand-operated treatment sprayers, an array of disease sensors that capture and identify airborne contaminants prior to becoming visible on plants, and a variety of other environmental indicators to help validate treatment efficacy. Our treatment prescription, based on a proprietary efficacy model and environmental monitoring feedback, is custom designed and implemented within each facility. The system is designed for the optimization of the treatment of **land, water, air**:

- Surface sanitation for hard non-porous surfaces
- Fertigation/irrigation dosing to reduce biofilm/disease
- Odor suppression
- HVAC/filtration optimization



The Tools

PATH^{OX} is an EPA-registered broad-spectrum liquid biocide (chlorine dioxide) that is effective against microbiological contaminants commonly found in indoor agriculture—powdery mildew, botrytis, aspergillus, biofilms, viruses, bacteria, and other pathogens. Most importantly, it won't harm plants or staff when used according to the label. It can be applied *manually* or by a fully *automated* installation throughout the facility.

ODOR^{OX} is a deodorizer that is highly effective at controlling unwanted odors that arise from high VOC grow environments. Using a special chlorine dioxide-based, controlled gas released product (for odors only, not a pesticide), the air is treated to control odors while maintaining safe levels for employees under EPA and OSHA standards. The ability to combine disease and odor control into one platform sets **CLEANTheory** apart in terms of scalability and for supporting maximum operational efficiency.

FLTR^{OX} is a subscription-based, concierge recurring filter delivery service that provides high-performing filters designed for indoor agriculture. Ensuring *just-in-time*, on-schedule filter replacement helps operators who typically have filters that are out of date due to the challenges of keeping up with replacement schedules, fitness monitoring, on-time procurement, staffing changes, supply chain interruptions, and other factors. Old or underperforming filters increase the likelihood of disease outbreaks and contribute to substandard working conditions for employees and guests.