



**PURE
SEEN**

Photocatalysis in the agro-food field Nasa-researched technology

Active Photocatalysis NCC (Natural Catalytic Conversion)





About us

MayzBXL BVBA is an Innovative platform and international solutions provider in pursuit of operational excellence, efficiency and profitability. MayzBXL's distinctive solutions are based on creativity, customer centric & intelligent integrations to offer the right technologies and the best business processes, that reshape and meet our client's requirements and needs.





Who are we?

The MayzBXL network offers its end-users needed project skills, the best practices & unique expertise while ensuring the availability of required local support and service to sustain a successful implementation and experience. The leadership team & local partners of a relevant industry work closely together to offer clients thorough vision and practical solutions that meet client expectations.



Our “Green Technologies”

“PureSEEN™ ASP Range”



Photocatalysis



Air & Surface decontamination

Under the action of UV light (UV-C), the advanced catalyst coating (titanium dioxide TiO₂ combined with rare alloys) creates electronic charges on its surface (e⁻ electrons and h⁺ holes), which react with the dioxygen and water naturally present in the air to form radical hydroxyls (powerful oxidants). These oxidants attack and eliminate organic pollution (Bacteria, viruses, mold, odors, VOCs, etc...)





“PureSEEN™ ASP Range” - Active technologies

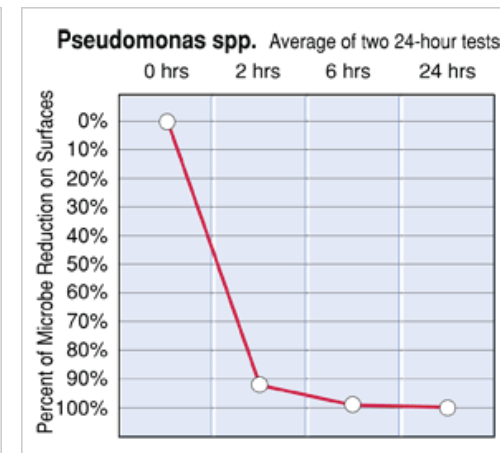
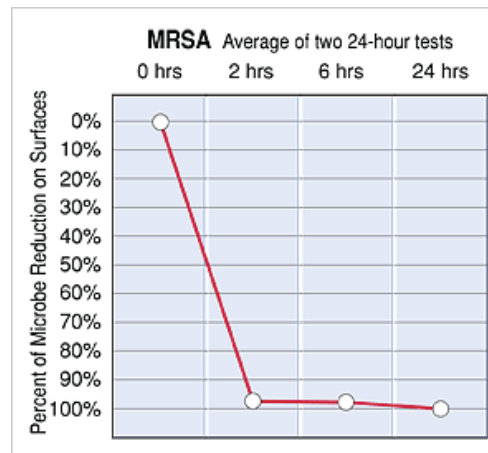
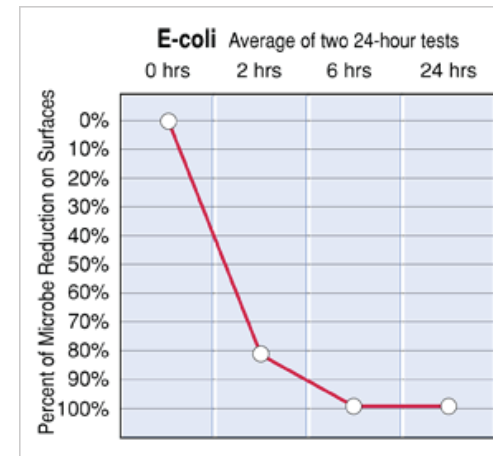
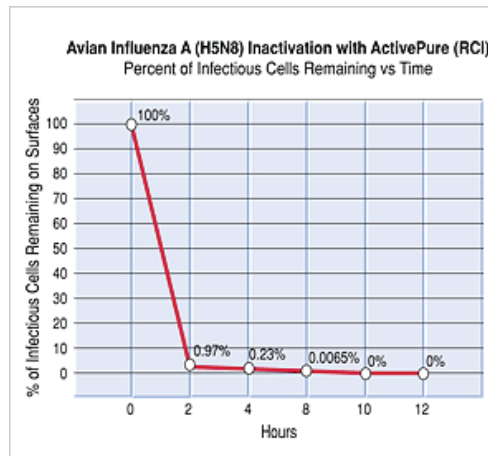
- ⚙️ Our technology is the only one that combines up to five nature-based technologies working together to treat indoor air like nature cleans outdoor air.
- ⚙️ Photocatalysis to create friendly oxidizers to reduce microbial and organic based contaminants and odors (ammonia, etc...)
- ⚙️ Using two types of ionization to reduce airborne particles loads.
- ⚙️ Unlike other products in the market, these air purification products represent active technologies that bring the solution directly to the problem, rather than requiring odors and bacteria to go physically through the unit (passive technology).





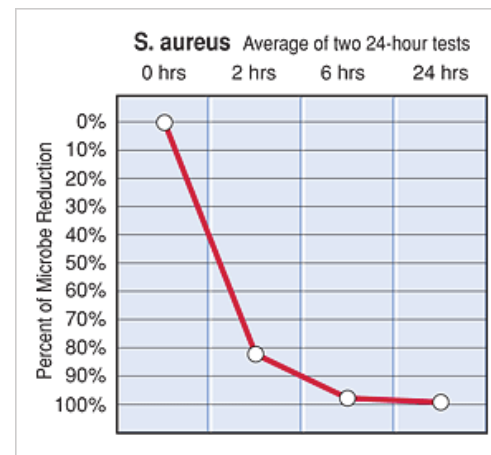
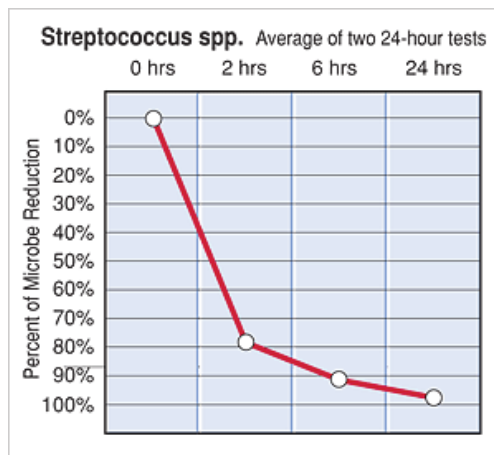
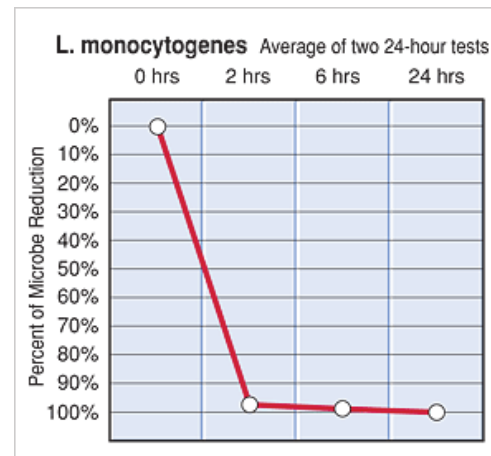
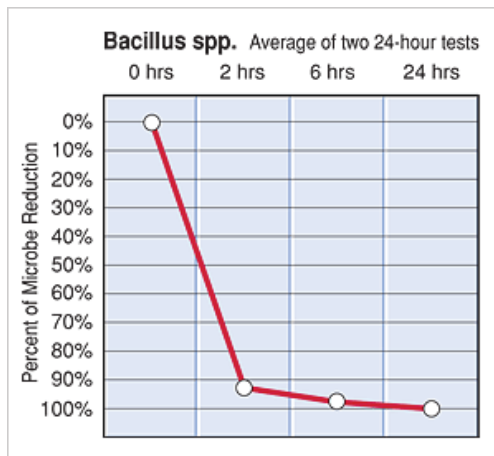
Effects of Active Photocatalysis NCC

Technology on reducing common contaminants on surfaces* in 24-hour testing



Effects of Active Photocatalysis NCC

Technology on reducing common contaminants on surfaces* in 24-hour testing



Effective

Elimination of ethylene, bacteria, molds, mycotoxins and volatile organic compounds (VOCs).






Economic

- ⚙️ Low maintenance required (change of dust filters and lamps according to use)
- ⚙️ Low power consumption
- ⚙️ Possibility of keeping fruits and vegetables at slightly higher temperatures (energy savings)
- ⚙️ Increased concentration of CO₂ (limits the respiration of the fruit) in addition to the reduction of ethylene
- ⚙️ Suppression of certain pesticides










Ecological

-  No use of chemicals (no biocide)
-  No permission to use required
-  Process compatible with 'Bio' productions



“PureSEEN™ ASP Range”

5 million purifiers sold !
20 years’ experience in 28 countries!

-  in the medical and private field
-  in the industrial fields
-  in the agri-food sector
-  in the commercial buildings and centers
-  etc...

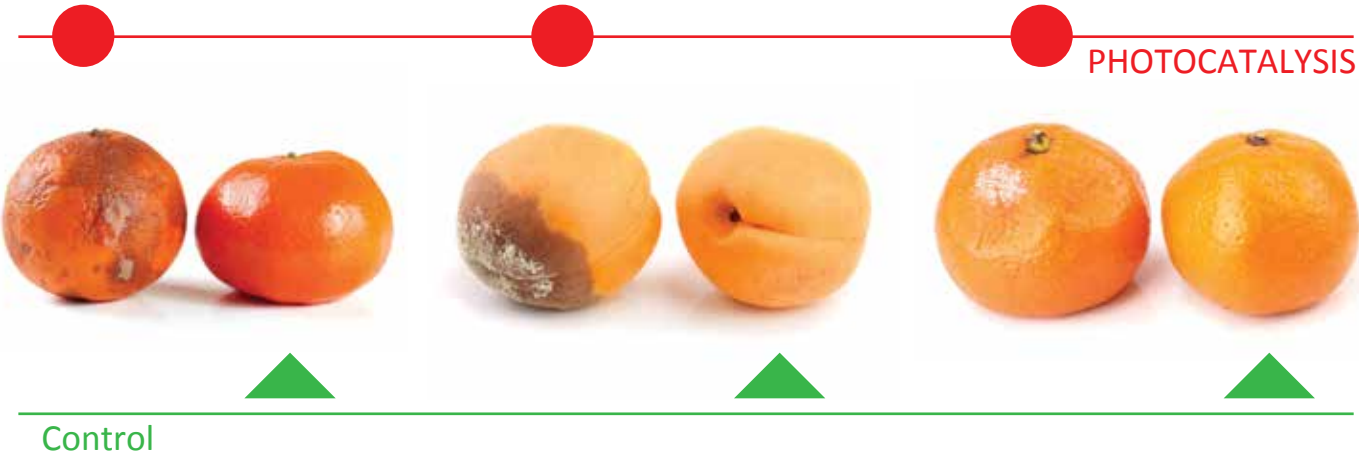




Recent Studies at the University of Zaragoza

demonstrate the effectiveness of our devices on:

- ☼ The antimicrobial effect in the air and on the fruit surface



Recent Studies at the University of Zaragoza

demonstrate the effectiveness of our devices on:

- 🌀 The influence of photocatalytic treatment on the fruit ripening process



Photocatalysis



Control



Recent Studies at the University of Zaragoza

demonstrate the effectiveness of our devices on:

- ⊗ The effectiveness of “ASP Ductstation 10” on the reduction of ethylene
- ⊗ The non deterioration of the organoleptic properties of the products



Recent tests in the laboratory Reactiva

For fruits preserved in a volume treated by NCC

-  Better appearance of fruits
-  Better conservation
-  Odor elimination
-  Minor weight loss

Without NCC 



With NCC 



Recent tests in the laboratory Reactiva

Treatment results after 2 weeks

Without NCC



Two weeks



With NCC

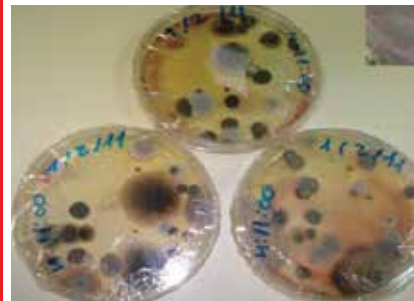


Recent tests in the laboratory Reactiva

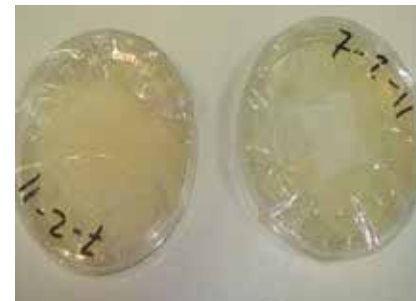
Results on tomatoes after 15 days



Without NCC








15 days



With NCC

ASP Ductstation 10

ASP Ductstation 10 equipment with NCC™ technology eliminates up to 99% of biological threats caused by:

-  Fungi (Botrytis cinerea, Penicillium sp, Rizhopus, Monilinia fructicola, etc.)
-  Bacteria (Pseudomonas alcaligenes, Pseudomonas aureuginosa, Listeria monocytogenes, Micrococcus, Streptococcus, Sarcina, Leuconostoc, Lactobacillus, Proteus, lavobacterium, etc.)
-  Molds and yeasts
-  Ethylene and other VOCs (ammonia, hydrogen sulfide, skatole, indole, urea, etc.)
-  Spore





ASP Ductstation 10

What does the ASP Ductstation 10 bring?

- ⚙️ Repurpose value to your company and your product
- ⚙️ Improves its quality management system or food safety
- ⚙️ They perform disinfection without any need to stop production
- ⚙️ Increase the shelf life of the fruits and vegetables
- ⚙️ Reduces risk and provides more operational flexibility

MAIN CLIENTS AT THE FOOD INDUSTRY?





PARTNERSHIPS WITH OFFICIAL AND GOVERNMENTAL OFFICES



Instituto de Investigación y Formación Agraria y Pesquera
CONSEJERÍA DE AGRICULTURA Y PESCA





- ⚙️ Alliance for investigation with public funds (subvention)
- ⚙️ Biologist working for us for 2 years, developing applications at firms in the agricultural field

IFAPA'S GOALS & OBJECTIVES:

- ⚙️ Improve competitiveness and quality of agricultural products.
- ⚙️ Encourage the development of new technologies in order to get further modernization of intensive horticulture.
- ⚙️ Develop an informative work with the ultimate goal of providing the industry the results of research and experimentation.
- ⚙️ Improve training and increase the professional skills of agricultural

PureSEEN™ IST Range Thermal insulation – Temperature Control

Based on NASA researched technology, a range of high performing advanced thermal insulation paints. These paints are projected by “Airless” spray onto all surfaces, at varying thicknesses (1-2mm) to reduce the thermal shock created by the sun in hot climates.

-  An effective, long lasting and permanent insulating performance to optimize Temperature Control and running costs.
-  Upto 40% reduction in energy cost for containers insulated with PureSEEN™ IST Range
-  Combine the technologies to containers in order to prolong product life and quality
-  Reduce product deterioration and product loss associated to unforeseen transportation issues.





Green Technologies

J. E. Mommaertslaan 22, 1831 Diegem, Belgium

