



Space Research HEALTH ★ BENEFITS

Space Technology Used Against Terror

(NAPSA)—One of America's latest defenses against bioterrorism comes from what many consider a surprising place: space. A device used to help preserve plants in space-based experiments is also an effective means of killing anthrax.

The anthrax-killing air scrubber, called AiroCideTiO₂, is a table-top sized, metal box that bolts to office ceilings or walls. Its fans draw in airborne spores of all kinds (including anthrax, in the unlikely event it is present) and destroys them.

The technology used to build the device came from researching ways to control levels of ethylene gas (a gas that causes fruits and vegetables to ripen and decay faster) for use on space-based plant growth experiments.

In the early 1990s, scientists found that ultra-thin layers of titanium dioxide exposed to ultraviolet light converted ethylene into carbon dioxide and water (both of which are good for plants).

A process was then developed that could apply titanium dioxide to a variety of materials. The Wisconsin Center for Space Automation and Robotics used that process to design an ethylene scrubber, which was used to grow potato plants during a Space Shuttle mission in 1995.



Technology developed to grow plants in space may help protect people from anthrax.

Over the years, scientists have refined the technology and it is now used to grow plants on the ISS—and recently, to kill anthrax on earth.

“Greenhouses may seem to have little to do with the war against terror,” says Mark Nall, director of NASA’s Space Product Development program. “However these findings show how space research helps people on earth in indirect and unexpected ways.”

For more information, visit www.nasa.gov.